

### COUNTY BOROUGH OF BURY.

# ANNUAL REPORT

OF THE

# Medical Officer of Health,

FOR THE YEAR

1912,

BY

# G. GRANVILLE BUCKLEY,

M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH FOR THE BOROUGH,
MEDICAL OFFICER TO THE EDUCATION COMMITTEE,
MEDICAL INSPECTOR UNDER THE MIDWIVES ACT,
AND

MEDICAL ADVISER TO THE LOCAL INSURANCE COMMITTEE.

BURY:

PRINTED AT THE "TIMES" OFFICE, CROSS STREET.



On,



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Medical Adviser to the Local Insurance Committee.

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# HEALTH COMMITTEE, 1912.

CHAIRMAN - HIS WORSHIP THE MAYOR (ALDERMAN PARKS).

DEPUTY-CHAIRMAN - COUNCILLOR T. B. SMITH.

ALDERMAN	ASHWORTH,	Councillor	DUCKWORTH,
,,	COLLINGE,	,,	HARGREAVES,
,,	DAWSON,	,,	HARRISON,
,,	FLETCHER,	,,	HOLT,
,,	GREENHALGH,	,,	G. A. KAY.
Councillor	BATTERSBY,	,,	ROTHWELL,
,,	BRADLEY,	,,	SHARP,
,,	BRIDGE,	,,	J. SMITH,
,,	DAWSON,	,,	A. TAYLOR.
	,		

Meetings—The Wednesday in each month immediately preceding the 14th day before the Council, at 10-0 a.m.

### OFFICIALS OF THE HEALTH DEPARTMENT.

**-**

- Inspector of Nuisances, District Inspector of Moorside and East Wards, Inspector under Shop Hours' Acts, Inspector under Explosives Act, &c.:—John Haworth, Cert. R.S.I., Certified Sanitary Engineer.
- District Inspector for Bury South and Elton, Inspector of Common Lodging-Houses, Canal Boats, &c.:—Samuel Kay, Cert. R.S.I.
- Inspector of Meat, and of Dairies, Cowsheds, and Milkshops; Inspector of Offensive Trades, &c.:—W. P. Openshaw, Cert. R.S.I., Certified Inspector of Meat and other Food.
- Health Visitor, Inspector of Workshops (where Females are employed), Inspector under Shop Hours' Acts, Inspector of Midwives, &c.:—Nurse A. Hampton.
- School Visitor:—LILIAN H. RISHTON, M.I.H.
- Chief Clerk:—P. Wood. Junior Clerk:—Fred Haworth.
- Disinfectors, Drain Testers, &c.:—John Kenyon and Henry Mitchell, Cert. R.S.I.

Medical Officer of Health:
G. Granville Buckley, M.D., D.P.H.

Inspector under Food and Drugs Acts, Abattoirs Superintendent: H. C. Cass (Markets Inspector).

Borough Analyst:—Thomas J. Hutchinson, F.I.C.

Veterinary Inspector and Surgeon:—W. E S. RICHMOND,
M.R.C.V.S.

### Public Health Department,

Parsons Lane,

BURY,

July, 1913.

To the Chairman and Members of the Health Committee.

Gentlemen,

I have the honour to present to you my Annual Report on the health and sanitary circumstances of your Borough during the year 1912.

The year, on the whole, has been a most satisfactory one from a point of view of Public Health. The death rate (14.18) is the lowest yet recorded for the Borough, and the Infant Mortality also shows a considerable diminution. The number of cases of Scarlet Fever, Diphtheria and Membranous Croup, and Enteric Fever notified during the year is considerably less than has been the case during the past two or three years.

The birth rate shows a slight increase upon that of 1911, but the number of births notified during the year is 59 below the average annual number registered during the ten years 1902 to 1911.

The death rate from Phthisis shows an increase, but it is hoped that when the various measures which are about to be adopted get into working order this disease will rapidly diminish.

For special items of information in this report I am indebted to Messrs. J. Ainsworth Settle, H. C. Cass, R. B. Rigby, J. Isherwood, S. Comfort, and to the Public Officials; also to many Medical Officers of Health.

I have also to express my thanks to all the members of my staff for their loyalty and co-operation in their respective capacities.

Especially am I grateful to you for the courtesy, co-operation, and kind consideration extended to me.

I am, Gentlemen,

Your obedient Servant,

G. GRANVILLE BUCKLEY,

'Medical Officer of Health.

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# County Borough of Bury.

# STATISTICAL SUMMARY, 1912.

Situation—Latitude, 53° 36′ N.; Longitude, 2° 18′ W.
Population, estimated to the Males27934 Total59106 middle of the year 1912 Females31172
Number of Inhabited Houses (Census 1911)13919
Rateable Value
Marriages (Bury Union)
Births $\left\{\begin{array}{lll} \text{Males.} & \dots & 615 \\ \text{Females.} & \dots & 615 \end{array}\right\}$ Total 1230
Annual Rate of Births per 1000 of the Population20.81
Deaths $\left\{ \begin{array}{ll} \text{Males} \dots & 424 \\ \text{Females} \dots & 414 \end{array} \right\}$ Total 838
Annual Rate of Mortality Males 15.18 Females 13.28 Total 14.18
Annual Rate of Mortality per 1,000 (corrected by the Registrar General's Factor)
Excess of Registered Births over Deaths
Infantile Mortality 112 per 1000 Births.
Density.—The mean density of the Borough from the census

Density.—The mean density of the Borough from the census of 1911 was equal to 10.09 persons per acre:—In Church Ward, 26.72; East Ward, 16.15: Moorside Ward, 9.33; Redvales Ward, 9.22; Elton Ward, 6.76.

Area.—The Municipal Borough of Bury comprises parts of what were formerly the Townships of Tottington-lower-End, Shuttleworth, Bircle-cum-Bamford, Heap, Pilsworth, Pilkington, Radcliffe and Elton, as well as the township of Walmersley, and has a total area of 5925 acres.

Elevation.—The mean elevation of the Borough is about 300 feet above sea level, and varies between 223 feet at Blackford Bridge and 765 feet at Higher Sedger Hey.

### LEGAL SUMMARY.

Particulars of the Sanitary Laws in force in the Borough (other than Public General Acts):—

LOCAL ACT.

Bury Corporation Act, 1909.

ACTS CONFIRMING PROVISIONAL ORDERS.

Local Government Board's Provisional Orders Confirmation (No. 17) Act, 1903. (An Act to confirm certain Provisional Orders relating to Bury and the Bury and District Joint Hospital Board.)

Local Government Board's Provisional Orders Confirmation (No. 5) Act, 1911, which confirmed a Provisional Order made by the Local Government Board for the inclusion of Warth Fold within the Borough as from the 9th November, 1911.

### ACTS ADOPTED.

Public Health Acts Amendment Act, 1890. (March 5th, 1891; came into operation May 1st, 1891.)

Infectious Diseases (Prevention) Act, 1890. (August 2nd, 1900; came into operation October 1st, 1901.)

Housing of the Working Classes Act, 1890—Part III. (June 3rd, 1909.)

Notification of Births Act, 1907. (March 5th, 1908.)

Public Health Acts Amendment Act, 1907. Orders made, declaring certain Parts and Sections thereof to be in force in the Borough, by the Local Government Board on November 8th, 1909 (came into operation 1st January, 1910), and by the Secretary of State on October 13th, 1909.

# ACTS CONSTITUTING CERTAIN JOINT AUTHORITIES—

(i.) as to prevention of pollution of rivers, namely: Local Government Board's Provisional Orders Confirmation

(No. 10) Act, 1891. (Confirming a Provisional Order constituting a Joint Committee, under section 14 of the Local Government Act, 1888, to enforce the provisions of the Rivers Pollution Prevention Act, 1876, in relation to parts of the Rivers Irwell and Mersey);

(ii.) as to water supply, namely:—Bury and District Water (Transfer) Act, 1900 (constituting the Bury and District Joint Water Board).

Estimated Population.—The Registrar-General estimated that the population of the Borough would be 59,106 at the middle of the year 1912, this being an increase of 441 over the estimated population of the preceding year.

The following table shows the estimated population and the number of males and females in each ward of the Borough:—

Ward	Males.		Females	S.	Total.
Moorside	6549		7767		14316
East	6118		6676	• • •	12794
Church	3424		3535	• • •	6959
Redvales	5107	• • •	6011	• • •	11118
Elton	6736	• • •	7183	•••	13919
_		_			
Totals	27934		31172		59106
		_			

Rainfall for the Year 19	2. Bury.	(Yard,	Parsons	Lane)
--------------------------	----------	--------	---------	-------

JanTotal Rainfall 4.87in.  Greatest fall in 24 hours 0.84in., date January 16th.  No. of days on which 0.01in. or more fell = 19.
FEBTotal Rainfall 1.71in.  Greatest fall in 24 hours 0.39 in., date February 22nd.  No. of days on which o.o1in. or more fell = 16.
MarTotal Rainfall 6.46in. Greatest fall in 24 hours 0.89in., date March 14th. No. of days on which 0.01in. or more fell = 25.
Aprl. Total Rainfall rooin.  Greatest fall in 24 hours o 40in., date April 9th.  No. of days on which o o in. or more fell = 7.
May. Total Rainfall 3.13in.  Greatest fall in 24 hours 0.65in., date May 22nd.  No. of days on which 0.01in. or more fell = 15.
JUNE. Total Rainfall 5.95 in.  Greatest fall in 24 hours 1.18 in., date June 17th.  No. of days on which o o in. or more fell = 26.
July Total Rainfall 5.34in.  Greatest fall in 24 hours 1.92in., date July 31st.  No. of days on which o.o1in. or more fell = 19.
AugTotal Rainfall 7.58in.  Greatest fall in 24 hours 1.15in., date August 23rd.  No. of days on which o.o.in. or more fell = 25.
SEPTotal Rainfall 1.76in. Greatest fall in 24 hours 0.53in., date September 3rd. No. of days on which o.o.in. or more fell = 9.
OctTotal Rainfall 5.50in.  Greatest fall in 24 hours 1.94in., date October 26th.  No. of days on which o.01in., or more fell = 13.
NovTotal Rainfall 3.57in.  Greatest fall in 24 hours 0.76in., date November 4th.  No. of days on which o orin. or more fell = 19.
DecTotal Rainfall 5.34in.  Greatest fall in 24 hours 0.94in., date December 11th.  No. of days on which 0.01in. or more fell = 24.
Total Annual Rainfall52.21ins 39.36ins. 43.86ins.

Total No. of days on which rain fell. 217 ... 185 ...

RAINFALL AT GREENWICH OBSERVATORY, 1912.

Total ..... 24.85 ins.

Number of wet days ...... 179

### BIRTHS.

During the year 1,240 births have been registered within the Borough, of which 12 belonged to other districts. By deducting these 12 births the number will be reduced to 1,228, to which must be added two births which have occurred in other districts, thus bringing the corrected number of births to 1,230.

Of this number 615 were boys and 615 were girls, representing a birth rate of 20.81 per 1,000 of the population, as compared with a rate of 20.28 per 1,000 in the preceding year. The corrected number of births shows an increase of 40 as compared with the previous year, but is 59 below the mean number for the ten years 1902-1911.

The birth rate is, with the exception of the years 1909 and 1911, the lowest recorded for the Borough, and is one of the most unsatisfactory features of the year's statistics. It compares very unfavourably with similar Lancashire towns, such as St. Helens, Bootle, and Wigan, with rates of 31.9, 29.9, 28.59 respectively.

### WARD DISTRIBUTION.

•	No	. of Birt	hs. R	ate per 1000.
Moorside	• • •	309		21.15
East	• • •	283	• • • • • • • • •	23.76
Church	• • •	169	• • • • • • •	23.13
Redvales		187	• • • • • • • •	16.81
Elton		282		19.92

Forty-five of the above births were illegitimate, as compared with sixty in the previous year, being apportioned to the wards as follows:—

Moorside	13{	(3 of which occurred in the Union Workhouse).
East	9{	(2 of which occurred in the Union Workhouse).
Church	12	
Redvales	3{	(1 of which occurred in the Union Workhouse).
Elton	8{	(1 of which occurred in the Union Workhouse).
Total	45	
	_	

### MARRIAGES.

The total number of marriages celebrated in the Bury Union during the year 1912 was 1,251, being a decrease of 57 as compared with the preceding year. The quarterly returns of the marriages solemnised in the Bury District in the year 1912 are summarised as follows:—

Church	of England	Autho	Before rised Pe		Before Registrai	:S	Total.
March Quarter, 1912	108	• • •	45		52		205
June Quarter, 1912	196		84		89	• • •	369
September Quarter, 1912	253		76	• • •	80		409
December Quarter, 1912	142		53		73		268
				_			
Totals	699		258		294		1251

### DEATHS.

During the year 940 deaths have been registered in the Borough, being a decrease of 120 as compared with the preceding year. Of the deaths, 220 occurred in the Union Workhouse, 37 in the Dispensary Hospital, 11 in the Florence Nightingale Hospital, and six in the Robinson Kay Home.

Of the 940 deaths, 143 were of persons not usually resident in the Borough, 54 being from Heywood, 27 from Radcliffe, 24 from Ramsbottom, 12 from Tottington, nine from Whitefield, four from Bury Rural, two from Manchester, two from Rochdale, and one each from Stockport, Lancaster, Swinton, Rawtenstall, Middleton, Halifax, Prestwich, Oswaldtwistle, and India.

By excluding these 143 deaths of non-residents, the number of deaths is reduced to 797, to which must be added the 41 deaths of Bury residents which have occurred in other towns. The corrected number of deaths of Bury residents is thus brought to 838, which is less by 116 than the previous year, and is 123 below the mean number for the ten years 1902-1911.

The death rate is equal to 14.18 per 1,000 of the population, as compared with a rate of 16.26 per 1,000 in the previous year,

and compares favourably with the rate (14.6 per 1,000) for the 95 great towns of England and Wales. It is the lowest death rate yet recorded in the Borough, and is one of the most satisfactory features of the year's statistics.

Of the 838 persons who died, 424 were males and 414 were females, the rate of mortality being 15.18 and 13.28 respectively to every 1,000 persons of each sex living.

The decline in the number of deaths is due mostly to the decreased mortality from such diseases of children as Measles, Whooping Cough, and Diarrhœa, as well as the notifiable diseases—Scarlet Fever, Diphtheria, Typhoid Fever, &c.; also the decrease in the number of deaths from the Respiratory diseases.

It is gratifying to state that the greatest decrease in the mortality occurred among children who had not reached the age of twelve months, at which period of life it was found that—compared with the average number for the previous ten years—there had been 52 less deaths registered. A further cause for satisfaction is the fact that it has been accompanied by a decrease in the number of deaths among children who were over one year of age but under five years of age. The saving of infant life is one of the best proofs that an Authority can show of the work carried out by the Health Officials.

The lowest death rates are recorded in Redvales Ward (12.32) and Moorside Ward (12.85), whilst the highest rates were in Church Ward (20.12), East Ward (14.54), and Elton Ward (13.72).

The following table shows the natural increase of the population, i.e., the excess of births over deaths during the past 20 years (1893-1912):—

793 1912) .			1
Year.	Births.	Deaths.	Natural Increase.
1893	1488	1287	201
1894	1507	1077	430
1895	1710	1414	296
1896	1454	1162	292
1897	1520	1099	421
1898	1483	1057	426
1899	1439	1061	378
1900	1390	1108	282
1901	1272	975	297
1902	1214	955	259
1903	1329	1030	299
1904	1383	1003	380
1905	1271	964	307
1906	1336	1001	335
1907	1336	939	397
1908	1377	939	438
1909	1226	965	261
1910	1235	868	367
1911	1190	954	236
1912	1230	838	392
Total	27390	20696	6694

District Mortality Rates.—The following table shows clearly the difference as regards the mortality rates in the various Wards:—

Population, Acreage, and Death Rates in the Various Wards.

						Mortality per 1000				
WARD.	Estim'ted Popula- tion to middle of 1912.	Acreage.	Persons per Acre.	Total Deaths	*Death Rate per 1000.	Zymotic Diseases.	Phthisis.	Other Tuberculous Diseases.	Other Respiratory Diseases.	Cancer.
Moorside	14316	1534	9.33	184	12.85	0.56	0.77	0.49	1.96	0.84
East	12794	786	16.28	186	14.54	0.70	1.49	0.55	3.36	0.55
Church	6959	253	27.51	140	20.12	1.72	2.44	0.72	3.31	0.57
Redvales	11118	1239	8.97	137	12.32	0.54	0.81	0.45	0.22	1.08
Elton	13919	2042	6.81	191	13.72	1.14	1.51	0.14	2.01	0.50
Totals	59106	5854	10.10	838	14.18	0.86	1.30	0.44	$\overline{2\cdot47}$	0.71

<sup>\*</sup>Deaths occurring in Public Institutions have been relegated to the Ward to which the person belonged; deaths within the Borough of persons usually resident outside are here excluded, and correction is made for persons dying without the Borough, but usually resident within. It will be observed from the above table that the highest death rates, as in previous years, are recorded in Church and East Wards, which are the most densely-populated districts.

# Causes of, and Ages at Death during the Year 1912.

Consequent Develo	Nett Deaths at the subjoined Ages of Residents, whether occurring within or without the District.								s whether of Non-residents ions in the	
Causes of Death.	All ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	Total Deaths wh Residents or Non in Institutions
All Causes $\left\{ egin{matrix}  ext{Certified} & \dots \\  ext{Uncertified} & \dots \end{array} \right.$	812 26	131	28	23	25	35 2	118	222	230 8	274
Enteric Fever Smallpox Measles Scarlet Fever Whooping Cough Diphtheria and Croup. Influenza Erysipelas Phthisis (Pulmonary Tuberculousis). Tuberculous Meningitis OtherTuberculous Diseases Cancer, Malignant Disease Rheumatic Fever Meningitis Organic Heart Disease Bronchitis Pneumonia (all forms) Other Diseases of Respiratory Organs Diarrhœa and Enteritis Appendicitis and Typhlitis Cirrhosis of Liver Alcoholism Nephritis and Bright's Disease Puerperal Fever Other accidents & Diseases of Pregnancy and Parturition Congenital Debility and Malformation, including Premature Birth Violent Deaths, excluding Suicides Suicides Other Defined Diseases Diseases Ill-defined or	42 33 121 75 64 7	11 61 8	1 2 · · · · · · · · · · · · · · · · · ·		1 2 1	1	1  30  9 14 4 11  1  2  1 4			8 3 2 1 1 28 2 12 1 24 16 24 10  1 5 3 1 4 5 19 1 35
Unknown	89	8	1	1	1	1	2	• •	75	64
	838	138	28	24	25	37	121	227	238	274

### INFANT MORTALITY, 1912.

# Nett Deaths from stated causes at various Ages under One Year of Age.

CAUSE OF DEATH.	Under week.	2 weeks.	3 weeks.	4 weeks.	Total under month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under
			-2			——				l year.
All Causes $\left\{ egin{array}{ll} \operatorname{Certified} \dots & \dots & \dots \\ \operatorname{Uncertified} \dots & \dots & \dots \end{array} \right.$	26 3	8	3	3	40	33 2	17	25 	16 1	131 7
Smallpox	• •	• •	• •	• •	• •	• •	• •	• •	••	• •
Chicken-pox Measles	• •		• •	• •	• •	• •	• •	• •	$\begin{vmatrix} \cdot \cdot \\ 2 \end{vmatrix}$	$\frac{\cdot \cdot}{2}$
Scarlet Fever			• •	••					_	,
Whooping Cough		• •		• •	• •	3	2	3	3	11
Diphtheria and Croup			• •		• •	• •	• •	• •	• •	• •
Erysipelas	••	••	• •	٠.	• •	• •	••	••	`••	• •
Tuberculous Meningitis  Abdominal Tuberculosis	••	• •	• •		• •	• •	• •	2	• •	2
Other Tuberculous Diseases		• •	••	• •	• •	••	1	$\stackrel{\cdot \cdot}{2}$	• •	3
Meningitis (not Tuberculous)	•••	• •		• •	• •	1	1		$\stackrel{\cdot \cdot}{2}$	4
Convulsions				1	i		4	<b>2</b>		$\frac{1}{7}$
Laryngitis				• •					• •	• •
Bronchitis			• •		• •	3	1	4		8
Pneumonia (all forms)	• •	• •	• •	• •	• •	3	3	5	6	17
Diarrhœa	••	• •	1	• •	1	$\frac{2}{2}$	•••	2	1	$\underline{6}$
	• •	• •	• •	• •	• •	$\begin{vmatrix} 2\\1 \end{vmatrix}$	$2 \mid$	1	• •	5
Syphilis	• •	$\begin{vmatrix} \cdot \cdot \\ 2 \end{vmatrix}$	• •	• •	$\dot{\dot{2}}$	-	• •	• •	* *	$rac{1}{2}$
Rickets	• •		• •		2	• •	••	••		Z
Suffocation, overlying										• •
Injury at Birth				• •	• •					• •
Atelectasis	2				2	1				3
Congenital Malformations	4	2		• •	6	5	• •	• •	••	11
Premature Birth	20	2	$2 \mid$	2	$\frac{26}{3}$	6	$\frac{2}{2}$	• •	• •	34
Atrophy, Debility & Marasmus	2	•	• •	••	$\frac{1}{2}$	6	$2 \mid$	4	$\frac{2}{1}$	16
Other Causes	1	$2 \mid$	• •	• •	3	$\begin{vmatrix} 2 \end{vmatrix}$	• •	••	1	6
	29	8	3	3	43	35	18	25	17	138
		1	]		l l				1	

Nett Births in the year { Legitimate ...1185 | Illegitimate ... 45

Nett Deaths in the year { Legitimate Infants ...126 Illegitimate Infants ... 12

Vital Statistics of Whole District During 1912 and previous Years.

				BIRTHS.		TOTAL DEATHS	EATHS	Transfer-	Transfer-	NETT		DEATHS BELONGING THE DISTRICT.	G TO
YEAR	~	Population estimated	Un-	Nett.		REGISTERED IN THE DISTRICT.	DISTRICT.	able Deaths of Non-	able Deaths of Residents	Under 1 Year of Age.	. 1 Vear Age.	At all Ages.	Ages.
		each Year.	corrected Number.	Number.	Rate	Number	Rate	registered in the District.	registered in the District.	Number.	Rate per 1000 nett Births.	Number	Rate.
1907	•	58901	1336	0 0 0	*22.68	1034	17.55	108	13	*181	*135	939	15.94
1908	•	59064	1377	•	*23.31	1056	17.87	130	13	*178	*129	080	15.89
1909	•	59234	1226	•	*20.61	1063	17.94	115	17	*156	*129	965	16.29
1910	•	59409	1235	•	*20.79	982	16.53	124	10	*154	*124	898	14.61
1911	•	58665	1204	1190	20.58	1060	18.07	129	25	200	168	954	16.26
1912	•	59106	1240	1230	20.81	940	15.90	143	41	138	112	838	14.18
a of E	istrict ed by	Area of District in acres (exclusive of area covered by water)	exclusiv	re of are	;a) 5854.		otal pop amber c	Total population at all ages59040 Number of inhabited houses13919	t all ages		59040		At Census of 1911.

Area of District in acres (exclusive of area) 5854. covered by water)

\* Uncorrected.

Vital Statistics of Separate Localities in 1912 and Previous Years.

		Topin annot	0	99	<u>6</u>	98	6	8	2	62	55	7	69	67
		Deaths under		_	ರಾ	<u></u>	$\overline{\infty}$	9	4	9	2		1 0 4	1 2
	Z.	Deaths at all ages.		26	23.	19	20	20	20		17	19	210	191
	ELTON	Births Registered.	0	$\overline{}$	3	272	$\odot$		367	4		282	304	282
DISTRICTS.	<b>P</b>	Population estimated to middle of each year.	14033	406	409	14134	4	420	4		4	13815	14139	14159
DIST		Deaths under 1 year.	46	74	99	49	85	49	50	46	41	47	55	41
	H.	Deaths at all ages.	300			311	9	0		$\overline{}$	$\infty$	<u></u>	307	277
RATI	SOUTH	Births Registered.	70		0	389	$\bar{\infty}$	$\overline{}$	370	$\infty$	9	344	377	356
SUB-REGISTRATION	02	Population estimated to middle of each year.		790	79	99	803	808	18135	818	24	17942	18032	18427
SUB-1		Deaths under 1 year.		101		66			98			116	92	89
52	H.	Deaths at all ages.	CJ		434	70	461	9	425	456	409	489	444	370
	NORTH	Births Registered.	560	617	648	_	632	-		0	595	564	209	592
	4	Population estimated to middle of each year.	26290	26348	26405	26468	26536	26607	26681	26757	26835	80697	26583	26520
		Deaths under l year.	156	9	226	184	$\mathfrak{A}$	$\infty$	178	50	20	200	190	138
Y strict).		Deaths at all ages.	955	1030	1003	964	1001	939	939	965	898	954	961	838
BURY (whole district),		Births Registered.	-	1329	1383	1271	1336	1336	1377	1226	1235	1190	1289	1230
(wh	_	Population estimated to middle of each year.	$  \infty  $	831	$\infty$	58594	58744	$\alpha$	0	59234	59409	58665	58755	59106   1230
			•	:	•	:	:	•	•	•	•	•	of )	:
		YEAR.	•	:	:	:	:	•	:	:	:	•		:
		YE	1902	1903	90	1905	ರಾ	$\Box$	1908	0	1910	1911	Averages Years 1902 to 19	1912

### Mortality at Different Age Periods.—Of the 838 deaths:—

```
138 occurred in children under one year of age..... 16.46 per cent.
 28 occurred between the ages of 1 and 2 years.....
                                                       3.34
                                                                ,,
                                                        2.86
                                  2 and 5 years.....
 24
                                                                ,,
                                                       2.89
                               5 and 15 years.....
 25
                                                                ,,
                               15 and 25 years.....
 37
                         , ,
               , ,
                               25 and 45 years..... 14.43
121
                                                               ,,
                               45 and 65 years..... 27.21
227
238 occurred in persons over 65 years of age..... 28.40
                                                               , ,
                                                     100.00
```

Infectious Diseases (including Influenza).—The percentage of deaths from the infectious diseases (6.92) is 6.60 per cent. lower than in the preceding year. This decrease is due chiefly to the small number of deaths from Diarrhæa. As will be seen on reference to the appended table, the percentage of deaths from these diseases is the lowest recorded during the past ten years:—

Percentage 12.04 14.05 9.23 11.59 9.09 9.09 7.25 8.06 13.52 6.92

Diseases of the Respiratory System (excluding Phthisis):—146 deaths have been attributed to various diseases of the respiratory organs, which is a decrease of 25 deaths as compared with the preceding year.

Of these deaths 75 (or 51.37 per cent. of the total 146) were attributed to Bronchitis, being a decrease of nine deaths, as compared with the number (84) in the preceding year. The following table shows the age periods at which deaths from Bronchitis were recorded:—

Pneumonia caused 64 deaths, as compared with 72 deaths in the previous year. Of this number, 28 cases were due to Broncho Pneumonia and 36 to other forms. The following table shows the ward distribution and the age periods at which these deaths were recorded:—

Wards.	Under 1.	1 and nnder 2			15 and under 25			65 and up- wards	Totals.
Moorside	4	1	3		1	.2	1	1	13
East	7	1	1	1	1	2	5		18
Church	2	1	2	2	1	1	2	1	12
Redvales	2	1	1		1	3	3		11
Elton	2					3.	5		10
Totals	17	4	7	3	4	11	16	$oxed{2}$	64

Phthisis caused 77 deaths, making a total of 223 deaths from respiratory diseases, as compared with 228 deaths in the previous year.

Deaths from Respiratory Diseases in each of the preceding ten years:—

	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Bronchitis	93	99	118	90	93	100	75	117	77	84
Pneumonia	89	93	56	75	<b>5</b> 9	58	<b>6</b> 6	104	56	72
Oth'r Respirat'ry										
Diseases	2	12	8	15	8	7	7	7	2	15
Phthisis	75	69	97	73	74	66	63	71	73	57
Totals	259	278	279	253	234	231	211	299	208	228
		}								

### LONGEVITY.

Deaths of Persons over 60 Years of age.—The deaths of persons over 60 years of age were equal to 37.83 of the total deaths, as compared with 33.65 per cent. in the preceding year.

The number of deaths attributed to **old age** was 75, a decrease of 17 as compared with the previous year. The following table gives the number of deaths attributed to old age, and the percentage to the total number of deaths; also a comparison with each of the ten preceding years:—

YEAR.	1902	1903	1904	1905	1906	19 07	1908	1909	1910	1911	1912
No. of Deaths		79	73	72	66	77	72	94	98	92	75
Per cent. of Total Deaths		7.67	7.27	7.48	6.59	8.20	7.60	9.74	11.29	9.64	8.95

### INQUESTS DURING THE YEAR 1912.

During the year the causes of death of 70 Bury residents were investigated by the District Coroner (Mr. S. F. Butcher). In 44 instances it was found advisable to hold an inquest, and of this number 34 related to the bodies of males and 10 to the bodies of females. In 26 cases a public enquiry was dispensed with.

The following is a classification of the sex and age periods:—

Haden one of	Males.	Females.
Under one year of age		
Over one and under two years of age.	. —	I
Over two and under five years of age	. I	
Over five and under 15 years of age	. 3	2
Over 15 and under 25 years of age	. —	I
Over 25 and under 45 years of age	. 12	3
Over 45 and under 65 years of age	. 15	2
Over 65 years of age	. 3	I
		-
Total	. 34	10

The verdicts of the Coroner's Juries, and the wards to which the deceased belonged, are shown in the table:—

	Moorside		East.	Ch	urch.	Re	dvale	s.	Elton.
Natural Causes	• • •		3		6		1		3
Accident	5		I		5	• • •	5	• • •	7
Suicide	1	• • •	2	• • •	I		_		
Found drowned	—	• • •	1		_				
Homicide		• • •			I		—		
Misadventure	—				_		I	• • •	1

Among those certified as due to Natural Causes, nine deaths were returned as being due to Syncope or diseases of the Heart.

Of those due to Accident, six were due to falls, five to accidents on the railway, two from machinery, one by drowning, one by burns, and four by suffocation whilst getting coal from an unworked seam.

Of the Suicides, one was by gas, one by drowning, and two by hanging.

### UNCERTIFIED DEATHS.

The number of uncertified deaths (i.e., deaths which had not been certified by a medical man, or cases in which the Coroner considered an inquest unnecessary) was 26, fourteen being of males and twelve of females.

The following shows the age periods, and the wards to which the deceased belonged:—

Ages o-t	I-2	<b>2-</b> 5	5-15	5-25	25-45	65 45-65 upwai	rds
Moorside 2							
East —	,	—		—	I	2 —	
Church 2		—		I		<del> 2</del>	
Redvales 2	-	—	• • •		ĭ	<u> </u>	
Elton 1		I		Ι΄	—	I 2	

# Annual Rate of Mortality compared with other Towns.

The following table compares the Birth Rate and certain Death Rates of Bury with other manufacturing towns:—

						actui III	8		
TOWN.	Estimated Population.	Birth Rate per 1000.	Death Rate per 1000.	Zymotic Death Rate per 1000.	Phthisis Death Rate per 1000.	Other Tubercu- lous Diseases Rate per 1000	Cancer Death Rate per 1000.	Other Respira- tory Diseases.	Diarrhœa Death Rate per 1000.
	_								
Accrington	45175	18.75	11.77	0.35	0.79	0.37	0.64	1.72	0.20
Asht'n-u-Lyne	45179	23.3	16.8	1.4	1.1	0.2		4.0	
Blackburn	133539	20.4	14.4	1.0	0.81	0.24	0.95	3.10	0.29
Bolton	182534	22.6	13.7	0.78	0.99	0.29	0.92	2.98	0.09
Bootle	71152	29.9	18:34	1.79	1.61	0.35	1.06	3.37	0.56
Burnley	108012	23.1	15.0	1.17	0.79	0.43	0.82	3.3	0.48
Bury	59106	20.81	14.18	0.86	1.30	0.44	0.71	$2 \cdot 47$	0.24
Crewe	45342	$22\cdot 5$	12.6	1.27	0.83	0.46	0.9	2.02	0.39
Darwen	40611	17.02	13.86	0.86	0.71	0.22	1.01	2.56	0.05
Eccles	42500	22.4	13.6	1.6	1.2	0.21	0.84	0.24	0.18
Halifax	101500	18.0	14.7	0.6	1.0	0.38	1.1	2.4	0.19
Lancaster	38513	$22 \cdot 14$	12.90	0.67	1.06	0.46	0.88	2.46	0.1
Oldham	148840	22.9	16.3	1.3	1.3			3.1	0.8
Radcliffe	25750	19.72	13.54	1.00	0.77	0.23	0.81	2.91	0.27
Ramsbottom	15300	17.58	14.11	1.3	0.65	0.39	1.17	1.96	0.52
Rochdale	92530	20.3	15.0	1.05	1.10	0.42	0.83	2.76	0.21
Rotherham	63500	29.53	15.79	$2 \cdot 22$	0.87	0.45	0.88	$2 \cdot 45$	0.17
St. Helens	98159	31.9	15.5	1.76	0.92	0.66	0.59	3.37	0.19
Stockport	110781	22.75	16.31	1.44	1.31	0.48	1.01	3.43	0.31
Wallasey	81000	22.1	11.6	0.7	0.8	0.3	1.0	1.9	0.06
Whitefield	7004	19.5	11.5	0.57	0.57		$1\cdot 2$	3.00	_
Wigan	90504	28.59	15.91	1.34	0.72	0.74	0.53	4.02	0.41
						, _		_ 0_	
									•

<sup>\*</sup> Corrected.

### INFANT MORTALITY.

Number of births during the year	1,230
Number of deaths of children under one year of age	138
Infant Mortality	112

The Infant Mortality for the year 1912 is the lowest recorded for the Borough, being 56 per 1,000 births lower than the previous year and 35 below the mean rate for the ten preceding years. The decrease in the mortality amongst infants is one of the most satisfactory features of the year's work. The comparatively low mortality is undoubtedly due to the cold and wet summer, which consequently prevented Diarrhæa from becoming epidemic, there only being 11 deaths of children under one year of age from this disease, as compared with 45 deaths in 1911 and 19 deaths in 1910.

During the summer months of the year special visits were paid by the Health Visitor to the homes of the babies who were being bottle-fed, in order to advise mothers where necessary on the feeding and care of their infants during this period of the year. In addition close attention was also given to scavenging, and the frequent removal of household refuse, as the latter branch of work bears an important part in the prevention of summer Diarrhæa.

It will be seen on referring to page 30 that the number of breast-fed children shows an increase and the number of bottle-fed infants a decrease as compared with the respective numbers for the previous year. This is very pleasing to record, and shows to a certain extent that the advice of the Health Visitor is being carried out.

The Infant Mortality for the Borough—although the lowest ever recorded—is still far too high, but this is very difficult to remedy, as it is attributed to so many causes. Nearly 50 per cent. of the deaths of children under one year of age arise from premature birth, malformations, and other defects which soon put an end to the child's existence.

In the poorer parts of the town it is very evident that the infants do not receive the necessary care and attention, often being neglected, scantily clothed, and given unsuitable food, which in

many cases is contaminated by dust, dirt, &c. This contamination is to be attributed to the fact that the tenants have no place other than the living-room in which to store the food.

On reference to the table on page 19, it will be seen that 29 deaths (or 21.01 per cent.) occurred during the first week after birth, and 43 (or 31.16 per cent.) occurred during the first month.

Deaths from Zymotic diseases show a decrease as compared with the previous years, viz.: 24 deaths in 1912, 53 in 1911, 24 in 1910, and 22 in 1909.

Deaths from Respiratory diseases show a decrease of nine as compared with the previous year, eight being due to Bronchitis, to Broncho-Pneumonia, and four to Pneumonia.

The following table shows the number of deaths of infants per 1,000 births in Bury during the past eleven years:—

				_						Average	
1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	10 years	1912
128	174	163	146	177	135	129	129	124	168	147	112

Infant Mortality for the whole of	England and
Wales (1912)	95
For the 95 Great Towns	101
For the 146 Smaller Towns	98
For England and Wales (less the 24	ı towns) 86
For Bury	II2

From the list below it will be observed that as regards Infant Mortality Bury compares favourably with other Lancashire towns.

### Infant Mortalities.—Chief Lancashire Towns:—

Accrington	76	Bury	I I 2
Ashton-under-Lyne	126	Darwen	127
Blackburn	119	Oldham	117
Bolton	96	Rochdale	III
Bootle	108	St. Helens	124
Burnley	144	Wigan	125

Causes of Death.—Zymotic Diseases have caused 24 deaths, two being due to Measles, 11 to Diarrhœa, and 11 to Whooping Cough. The chief decrease is shown in the number of deaths from Diarrhœa (34 less than in the year 1911). The number of infant deaths from Diarrhœa during the last nine years in Bury is apportioned as follows:—11 in 1912, 45 in 1911, 19 in 1910, 12 in 1909, 20 in 1908, 11 in 1907, 43 in 1906, 33 in 1905, 32 in 1904, and 38 in 1903.

Respiratory Diseases.—These were responsible for 25 deaths (as compared with 34 deaths in 1911), and of these eight were due to Bronchitis and 17 to Pneumonia.

Tuberculous Diseases.—The Tuberculous diseases show a slight decrease. The number of deaths was five, as compared with six deaths in 1911, seven in 1910, four in 1909, nine in 1908, seven in 1907, and 11 in 1906.

Remaining Causes.—The chief remaining causes of death were:—

Premature Birth	34
Convulsions	7
Atrophy and Debility	16
Congenital Defects	II

An analysis of the deaths at the various age periods is given on page 19.

Inquests.—It was not found necessary to hold any inquests during the year on children under one year of age.

Uncertified Deaths.—In seven instances the Coroner deemed the holding of an inquest unnecessary, the cause of death in each case being returned as due to "Natural Causes."

Illegitimacy.—3.7 per cent. of the total births were illegitimate, and of the total deaths of children under one year of age 8.7 per cent. were of illegitimate children, as compared with 8.5 per cent. in 1911. The infant mortality among legitimate children was 106 per 1,000 births, whereas among illegitimate children it was 266 per 1,000 births.

Occupation of Mother.—Of the mothers of the 138 fatal cases:—

54 were occupied only with house duties (39.13 per cent.).

84 were engaged as either mill workers or otherwise employed away from home (60.87 per cent.).

In 1911 the percentage of mill workers was 61.50, and of home workers 38.50.

The following table shows the increase in the number of the mothers of fatal cases who are employed outside the home:—

Year		Deaths	Mothers o Infant Mortality (a) Outside Home					ccupied (b) At Home Doubtf			
1901		213				60 (28%)		117			
1901		156		128		41 (26%)		106		9	
						76 (33%)		135		20	
1903	• • •	231		174							
1904				163		71 (31%)	• • •	128		27	
1905	• • •	184		146		71 (38%)		113			
1906		236		177		139 (59%)		97			
1907		181		135		25 (62%)		56			
1908		178		129		63 (35%)		115			
1909		159		129		93 (58%)		66		—	
1910		154		124		100 (58%)		54	• • •		
1911		200		168		123 (61%)		77		—	
1912		138		I I 2		84 (60%)		54		_	

Insurance.—68, or 49.27 per cent., of the infants who died were insured, as compared with 37.50 per cent. in the year 1911.

Influence of Feeding on Infant Mortality.—During the year Nurse Hampton has obtained information as to the method of feeding of 1,199 of the 1,230 infants born. Of these:

```
730 were breast-fed, amongst which were 25 deaths, i.e., 3.38% 250 ,, bottle-fed ,, ,, 25 ,, ,, 9.92% 206 ,, breast and bottle-fed ,, 3 ,, ,, 1.43% 13 ,, spoon-fed ,, 10 ,, ,, 76.92% 15 died within 24 hours of birth.
```

### District Mortality.

	Infant Deaths	Births	Deaths per 1000 births		
Bury North { Moorside Ward East Ward	28	309	90		
Bury South { Church Ward Redvales Ward	22	169	130		
Redvales Ward	19	187	102		
Elton Ward	29	282	103		
Whole Borough	138	1,230	I I 2		

### NOTIFICATION OF BIRTHS ACT, 1907.

The above Act was adopted at a meeting of the Town Council held on February 8th, 1908, and the consent of the Local Government Board having been obtained, came into operation on April 8th.

Under the Notification of Births Act of 1907, 1,099 births were notified, 940 being notified by midwives, 126 by medical practitioners, and 33 by parents or other persons. Of the total number of births notified, 39 were returned as being "still-born," of which 32 were notified by midwives, six by medical practitioners, and one was notified by the parent.

The effect of the above measure cannot but tend to have a beneficial effect from a health point of view. Especially is this the case with regard to the feeding and care of infants, as the Lady Inspector is thus able at an earlier stage, where necessary, to give such information with regard to feeding, &c., as may be desired.

On referring to the subject of Infant Mortality on page 30, it will be seen that there is an increase in the number of breast-fed children and a decrease in those fed by bottle. This, without a doubt, shows the usefulness of the Notification of Births Act by enabling the Health Visitor to visit the babies immediately they are born, and advise the mother of the best way of feeding and taking care of the child. If she had to wait until the birth was registered (sometimes six weeks) it would then be too late to advise as to the best way of feeding.

In conclusion, I have pleasure in recording my appreciation of the valuable assistance which has been rendered, especially by the medical practitioners and midwives of the Borough, to the Health Department, by the promptitude with which the notifications have been made, thus tending towards the efficient and satisfactory working of this Act.

### NOTIFICATION OF INFECTIOUS DISEASES.

A. INFECTIOUS DISEASES NOTIFICATION ACT, 1899.

Number	of	cases .	 • • •	• • •	 	 	 	208
Number	of	deaths	 		 	 	 	IO

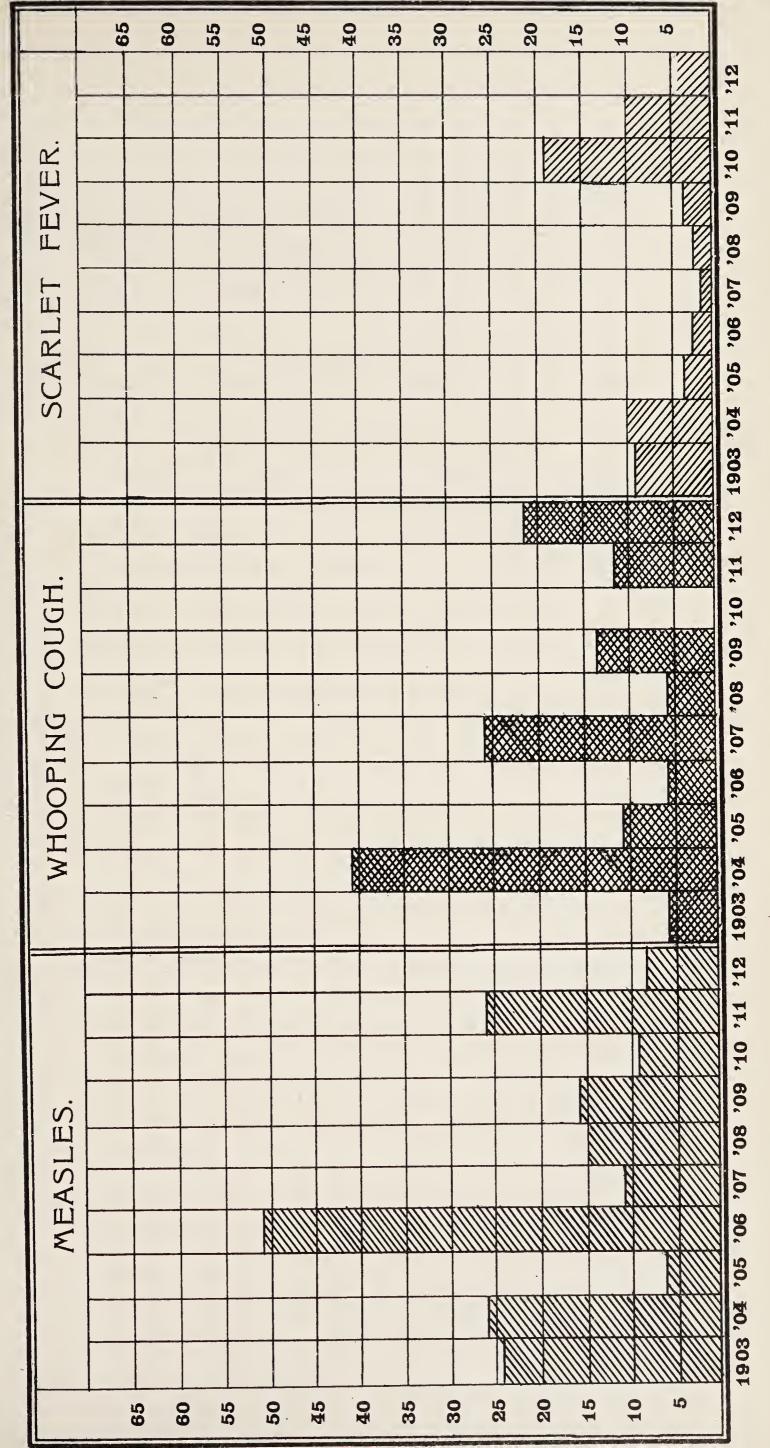
During the year 1912 the cases notified under the Infectious Diseases Notification Act number 208, or 170 less than the average for the preceding ten years. With regard to Scarlet Fever, there was a decrease of 81 cases notified as compared with the year 1911; the number notified (139) is 78 below the annual average for the previous ten years. The cases of Diphtheria and Membranous Croup show a reduction of 56 on the average number of notifications during the past ten years.

As compared with 1911, Scarlet Fever shows a decrease of 81, Enteric Fever a decrease of 19, Erysipelas an increase of nine, and Diphtheria a decrease of 31. The total number of deaths from the notifiable infectious diseases was 10, as compared with 18 in 1911, 33 in 1910, 15 in 1909, 21 in 1908, 23 in 1907, 20 in 1906, and 24 in 1905.

It was not found necessary to notify Chicken-pox during the year.

B. Other Infectious Diseases.—695 notifications (616 verified) were received from school authorities of cases of suspected Measles, Whooping Cough, &c., as compared with 1,074 in 1911, 589 in 1910, 989 in 1909, 653 in 1908, 730 in 1907, and 1,081 in 1906. Of these 695 suspected Infectious Diseases, 215 were cases of suspected Measles (188 verified). 92 Chicken-pox (85 verified), 15 Mumps (12 verified), 11 Ringworm (11 verified), and 328 Whooping Cough (290 verified).

# EATHS IN BURY DURING TEN YEARS, 1903-1912





The notified cases of Measles show a decrease of 254, and Whooping Cough an increase of 141, as compared with their respective numbers in 1911. The number of deaths from Measles was 8, a decrease of 18, and from Whooping Cough 22 deaths occurred, as compared with 12 deaths in 1911.

Suggestions for the Prevention of Measles.—The best administrative measures for the control of Measles may be summarised as follows:—

- A. Through Schools.—(1) By school notification. (2)
  By medical inspection of school children. (3) By
  exclusion from school of suspected children. (4)
  School closure.
- B. AT HOME.—By visits of Health Visitor and education of mothers.
- c. Generally by Popular Lectures, &c.

The advantage of school notification is to be seen in the fact that out of 695 such notifications received during the year, as many as 616 cases were verified as suffering from the disease. This reflects great credit upon the teachers in the Elementary Schools for their powers of observation and their concern for the welfare of the children in their charge.

It is obvious that much assistance may be given to those engaged in medical inspection by the teachers in the schools, on account of the special knowledge the latter have of the dispositions of the individual children when in health, which enables them to discern the changes which take place in incipient disease.

Table showing the number of cases of Infectious Disease notified

from 1889 to 1912.

DISEASE.	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	191
DISEASE.																							
Smallpox Scarlet Fever	42	98	255	272	12 359	28 449	160	1 365	262	148	236	5 432	179	37 156	59 156	25 261	33 197	1 90	 40	98	389	564	31 220
Diphtheria and	1 20		34	36	34	42	32	27	27	24	45	18	78	182	107	73	55	35	48	52	59	44	4
Membran'us Croup Enteric Fever	18	36	88	41	76 9	76 30	70 8	41	59 13	56	45 12	40 11	47 9	33 5	37 2	22 1	33 3	33 3	18 1	15 2	9	18	2.
Continued Fever. Typhus Fever	1			2		10				1						• •			• •				
Cholera Puerperal Fever		2	5	3	4	i3	4	2	5	6	8	15	7	ii	2	ii	4	11	14	9	5	4	t
Measles	22	27	360 45																				
Whooping Cough. Erysipelas		63	43									34	15	20	20	10	46 79	42	35	26	38	40	3:
Chickenpox									• •			• •	• •		• •		13						
*Poliomyelitis *Cerebro-Spinal	• •	••				• •	• •		• •	• •	• •		• •										
Fever													• •				••	• •					
‡Ophthalmia Neonatorum																	• •			• •	• •		
TOTALS	283	248	788	354	494	648	274	444	366	250	346	555	335	444	383	403	450	215	156	202	500	670	35'

<sup>\*</sup> Made notifiable on September 1st, 1912. 

† Made notifiable on July 15th, 1912.

## Cases of Infectious Disease notified during the Year 1912.

Cases	9 01		CCIOC		1000					0					
		Ca	ses not	ified in	n whol	e Distr	rict.		noti	otal Cas fied in ocality	each	F	o. of Ca Remove	ed	Tol
Notifiable Disease.				At A	ges—Y	ears.			Regist	tration Distric	Sub-		h loca		Cas Rem.
	At all Ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and   up-   wards.	North.	South.	Elton.	North.	South.	Elton.	Hos
Smallpox			• •	• •	• •			• •	• •	• •			• •	• •	•
Membranous Croup) Erysipelas Scarlet Fever	13 41 139	1	6 2 35	4 3 90	1 6 9	9 5	1 14	7	7 19 65	4 19 59	2 3 15	4 54	2  46	ii	ıin
Typhus Fever Enteric Fever	6		i		2	3			3	2	i	•	i	i	÷ (;
Relapsing Fever Continued Fever Puerperal Fever	6		* *		2	4			· · · · · · · · · · · · · · · · · · ·	2	2	• •			
Plague	2	i	ï			• •		* •	· · · 2	• •	• •	• •	• •	• •	
Neonatorum	1	1								• •	1				
TOTALS	208	3	45	97	20	21	15	7	98	86	24	58	49	13	129

## Number of Cases of Infectious Disease Reported in each Month of the Year.

Diphtheria & Onhth													
	Scarlet Fever.	Diphtheria & Membranous Croup.	Enteric Fever.	Continued Fever.	Puerperal Fever.	Erysip- elas.	Smallpox.	Poliomy- elitis.	Ophth mia N natoru				
January	12	4			1	13							
February	26	2	1		1	5							
March	15	2		• • •	1	5	• • •		•••				
April	22	1				<b>2</b>			•••				
May	6	1			1	2							
June	7	1		• • •		1							
July	8	• • •	2		1	4			1				
August	7		2			3		• • •					
September	7	* * *	* * *	• • •		2		2	•••				
October	18	1			1								
November	8	1	1			2	• • •						
December	3	• • •	• • •	• • •		2		• • •	• • •				
Totals	139	13	6	• • •	6	41	• • •	2	1				

# Number of Cases of Infectious Disease Notified in Each Quarter of the Year 1912.

	Scarlet Fever.	Diphtheria & Membran- ous Croup.		Puerperal Fever.	Erysip- elas.	Poliomy- elitis.	Ophthal- mia Neo- natorum.
QUARTER.  1st	53 35 22 29	8 3  2	1  4 1	3 1 1 1	23 5 9 4	 2 	1
Totals	139	13	6	6	41	2	1

## WARD DISTRIBUTION OF INFECTIOUS DISEASES, 1912.

	Scarlet Fever.	Diphtheria & Membran- ous Croup.	Enteric Fever.	Puerperal Fever.	Erysip- elas.	Poliomy- elitis.	Ophthal- mia Neo- natorum.
Moorside	21	2	•••	2	9	1	• • •
East	44	5	3		10	1	
Church	12	1	1		5		
Redvales	47	3	1	2	14		
Elton	15	2	1	2	3	• • •	1
Totals	139	13	6	6	41	2	1

## Cases Removed to the Florence Nightingale Hospital from the various Wards.

	Scarlet Fever.	Diphtheria & Membran- ous Croup.		Continued Fever.	Puerperal Fever.	Erysip- elas.	Smallpox.
Moorside	14	1	•••	• • •		• • •	• • •
East	40	2	• • •	•••	• • •		• • •
Church	10	1	1	• • •	• • •	• • •	• • •
Redvales	36	2	• • •	• • •	• • •	• • •	• • •
Elton	11	1	1	•••	• • •	• • •	• • •
Totals	111	7	2	•••	• • •	• • •	• • •

## SCARLET FEVER.

Number of cases notified	139
Number of deaths	4
Case mortality	2.87%

The number of cases notified shows a decrease of 81 as compared with the number (344) notified in the previous year. The notifications are fewer by 78 than the average number (217) notified during the ten preceding years (1902-1911).

#### QUARTERLY INCIDENCE.

	ıst	Quarter	21	nd Quar	ter 3	grd Quart	ter 4	<sub>t</sub> th Quart	ter
Notifications	 	53		35		. 22		. 29	
Deaths	 	2		I				. I	

#### WARD DISTRIBUTION.

	M	loorsid	е	East	(	Church	Re	edvales	Elton
Notifications	 • • •	21		44		12		47	 15
Deaths	 					I		2	 I

#### AGE DISTRIBUTION.

The youngest case notified was 12 months old, and the oldest 35 years.

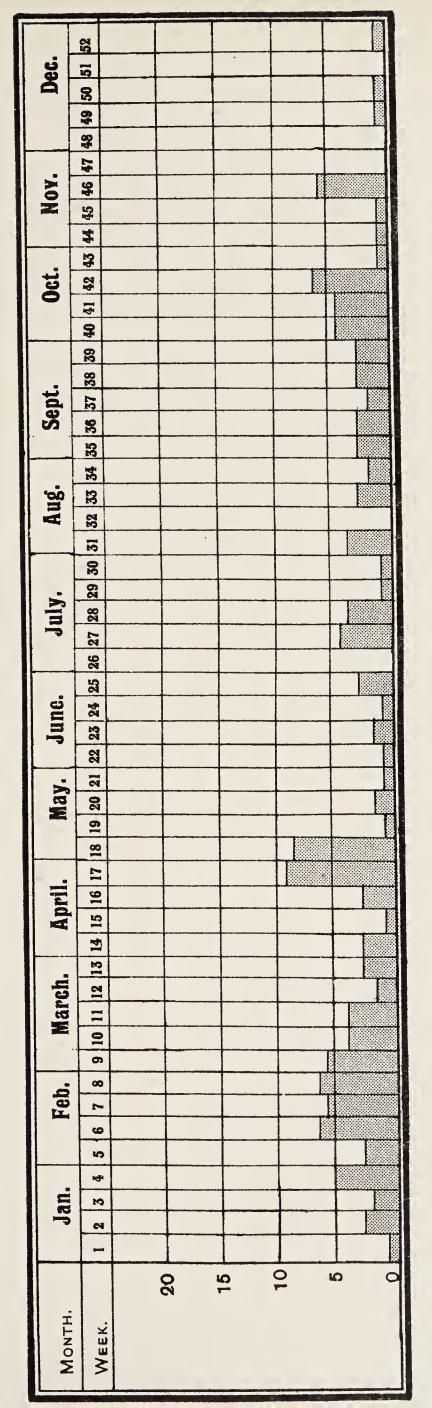
33 7	Under 1	r to s	5 to 15	15 to 25	25 to 45 4	5 to 65 ove	er 65 Tot	al
Notifications								
Deaths	—	. 2.	2		. —			4

Admission to Hospital.—Of the 139 cases notified, 111, or 79.86 per cent., were removed to the Florence Nightingale Hospital.

School Closure.—It was not found necessary to close any of the schools in the Borough on account of this disease, as in no instance was a school infection sufficiently marked to call for any other measure than exclusion of scholars.

It will be seen from the chart on opposite page that the disease was most prevalent during the first quarter of the year, although the incidence reached a maximum in the fourth week in April. During the second week in August, the last week in November, and the first and fourth weeks in December, no cases were notified.

CHART SHEWING THE NUMBER OF CASES OF SCARLET FEVER NOTIFIED DURING EACH WEEK OF THE YEAR 1912.





Throughout the course of the year the disease was generally of a very mild type. There can be no doubt that school life plays a very important part in the spread of Scarlet Fever and other infectious diseases. The present method of fixing teachers' salaries and payment of grants is far from satisfactory from a Public Health standpoint. Another matter to which I should like to draw attention is that of giving prizes to children for regular attendance. There must be a great tendency under the present system for children to be in attendance at school when they are not really fit.

#### DIPHTHERIA AND MEMBRANOUS CROUP.

Number	of	cases n	otified	 • • •	 	 • • •	13
Number	of	deaths		 	 	 	1

Thirteen cases of Diphtheria and Membranous Croup have been notified during the year, as compared with 44 during the year 1911, 44 in 1910, 59 in 1909, 52 in 1908, 48 in 1907, 35 in 1906, 55 in 1905, 73 in 1904, 107 in 1903, and 182 in 1902.

Only one death has been recorded, representing a mortality rate of 0.02 per 1,000, as compared with five deaths and a rate of 0.09 per 1,000 in the preceding year.

Of the 13 cases, seven were removed to the Florence Nightingale Hospital. The admissions to hospital constitute 53.84 per cent. of the total cases notified, as compared with 63.63 per cent. in 1911, 56.80 per cent. in 1910, 61.02 in 1909, 51.92 per cent. in 1908, and 58.33 per cent. ih 1907.

Of the seven cases admitted to the hospital, one, or 14.28 per cent., proved fatal. None of the six cases treated at home proved fatal.

#### MONTHLY INCIDENCE.

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
4	2	2	I	I	Ι				I	I		13

#### QUARTERLY INCIDENCE.

	ıst	Quai	rter 2n	d Quar	ter 3r	d Quar	ter 4t	h Quai	rter	Total
Cases		8		3				2		13
Deaths		I								Ι

#### WARD DISTRIBUTION.

	Moors	ide	East	Church	Redvales	Elton	Total
Cases	2		5	Ι	. 3	2	. 13
Deaths				Ι.			. I
Removed to hospit	al I		2	Ι.	. 2	I	. 7

## NOTIFICATIONS AND DEATHS AT DIFFERENT AGES.

	J	Jnder	τ	ı ander	d : 5 1	5 an under	.d 15	under	1d ' 25	25 ar under	1d 45	45 an under	1d 65	Total
Cases	 	I		6		4		1	• • •		• •	. I	• • •	13
Deaths	 			I							• •	. —		I

Antitoxin.—Towards the end of the year 1910 sanction was obtained from the Council to supply the medical practitioners of the district with Antitoxin free, for patients suffering from Diphtheria within the Borough. It is gratifying to note that not only the curative but the prophylactic use of the serum is practised by medical men in the Borough, who have under their care the families whose members have been infected or exposed to infection.

#### CASE MORTALITY IN

	1912	1911	1910	1909	1908
Hospital cases	14.28	 7.14	 28.00	 2.77	 18.51
Home treated cases		 18.75	 5.26	 17.39	 20.0

#### ENTERIC FEVER.

Cases notified	 • • •	 • • •	 	 			 6
Deaths	 	 	 	 	• • •	• • •	 2

Notifications of six cases of Enteric Fever were received at the Health Office during the year, as compared with twenty-five cases in the preceding year. The following are the number of cases which have been notified during the last ten years:—

1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
37 .	32	. 33 .	33	18	15	. 9	18	25	6

Of the six cases, two were removed to the Florence Nightingale Hospital. Two of the notified cases proved fatal, one of which was treated at home and one treated in Hospital.

The monthly incidence was as follows:—

Jan. Feb. Mar. Ap. May Jun. July Aug. Sep. Oct. Nov. Dec. 7	Γotal·
Notifications — 1 — — — 2 2 — — 1 —	6
Deaths — — — — — — — — — — — — —	2

#### AGE PERIODS.

	Under 1	1 to 5	5 to 15	15 to 25 2	25 to 45	45 to 65	Over 65	Total
Notifications		1		2	3	—		6
Deaths			_	1	1			2

#### WARD DISTRIBUTION.

	Moorside	3	East	C	hurch	Redval	es	Elton		Total
Notifications	. —		3		1	 . 1		1	• • •	6
Deaths	. —	• • •		• • •	1	 . 1	• • •		• • •	2

SEX INCIDENCE.—Of the cases notified, there were five females and one male.

Sanitary Condition of Infected Property.—The general sanitary conditions of the dwellings and surroundings of the six cases are summarised in the table on page 41.

From this table it will be seen that three cases occurred in a public institution (Union Workhouse), and that of the three houses infected, two were provided with privy middens, and one with a waste-water closet.

Bacteriological Tests.—Specimens of blood of 15 cases of suspected Typhoid Fever were sent to the Public Health Laboratory, Manchester, with the following results:—

Two gave positive results to Widal's test. Thirteen gave negative results.

Water Supply.—The water supply was directly from the public service, with the exception of one case, in which it was obtained from a private spring, and in no case was there any evidence of pollution.

MILK SUPPLY.—In no case was infection by this channel discovered.

Shellfish.—In one case there was a history of shellfish having been eaten a few days previous to the onset of the disease.

PREVENTIVE MEASURES.—These, for some years now, have consisted generally in (i.) Isolation (a) at home, or (b) in hospital. (ii.) Disinfection or destruction of stools. In the case of patients treated at home, special pails are supplied by the Health Department for the reception of the excreta of patients. The pails are removed frequently and their contents burnt at the destructor. (iii.) Thorough disinfection of house, bedding, &c. (iv.) Disinfection of sanitary conveniences attached to the infected houses. (v.) Examination of drains, and defects if found, are remedied. (vi.) Conversion of midden ashpits, where these exist in connection with infected houses, to the water-carriage system. The last remedy is, in my opinion, a most important one in the prevention of the future spread of the disease. (vii.) The possibility of individuals acting as "carriers" of the infection is kept in mind. As these individuals may be an active source of infection to others, without themselves actually suffering from the disease, supervision and education receive the necessary attention.

CASES OF ENTERIC FEVER.

	REMARKS.	Public Institution	Onset suddenly on July 14th,	with Diarrhosa Farm drinking water from spring. Manure midden-sted very near	house Public Institution	Public Institution	History of mussels having been partaken of during November	Privy Midden.
	Closet or Ashpit.	•	Ashpit cleared	montnly Ashpit cleared twice a year	•	•	Ashpit good, cleared every two months	P. & A.—Privy Ashpit or Privy Midden.
Condition of	Drains.	·	Good on surface	Not good on surface	0 0	•	Good on surface	P. & A
	Yard.	•	Good order	House yard fair, Farm yard dirty	:	•	Good order	W.C.—Water Closet.
Nature of	Accommodation.	W.C.	W.W.C.	P. & A.	W.C.	W.C.	P. & A.	
Cases in same	house or vicinity.	Cases No. 4 & 5	None	None	Cases No. 1 & 5	Cases No. 1 & 4	None	W.W.C.—Waste Water Closet.
	Age.	28	17	22	30	4	42	W.W.C.—V
	Sex	Ψ̈́	Ĥ	Ei.	떰	Ę,	M.	
	No.		63	ಣ	4	70	9	

## PUERPERAL FEVER.

Six cases of Puerperal Sepsis have been notified during the year, one of the cases proving fatal, as compared with six cases and three deaths in 1911. All the above cases were treated in their own homes.

#### ERYSIPELAS.

Number of cases notified ... ... ... ...

Number of deaths

Number of deaths 2
During the year forty-one cases of Erysipelas were notified,
being an increase of nine cases as compared with the number (32)
in the previous year. Two deaths were attributed to this disease,
as compared with no deaths in the previous year. No case was
removed to the Florence Nightingale Hospital for treatment.
Ward Distribution.
Moorside East Church Redvales Elton Total
Notifications 9 10 5 14 3 41
Deaths 2

## QUARTERLY INCIDENCE.

			Quarte			
Notifications		23	 5	 9	 4	 4 I
Deaths	• • •	2	 	 _	 	 2

#### AGE INCIDENCE.

	Und	er 1	r to 5	5 to 1	5	15 to 2	25 2	5 to 4	5 4	5 to 6	5	65 up	Т	otal
Notifications			. 2	 3		6		9		14		7		4 I
Deaths				 _	• • •			_				2	в • •	2

Sex.—As last year the incidence was greatest amongst females, 22 females and 19 males being attacked.

The regions of the body affected were as follower	ows:—
Face	30 cases.
Legs and arms	11 ,,

The majority of the cases occurred secondarily to some neglected injury, as a cut, scratch, or bruise.

On notification of the disease to the Health Department a thorough inspection of the premises is made, this frequently bringing to notice sanitary defects which otherwise would have escaped observation.

#### SMALLPOX.

No case of Smallpox occurred during the year. The last case notified in the Borough was on May 23rd, 1911.

#### SMALLPOX AND VACCINATION.

Return showing the number of births, deaths (under one year), vaccinations, conscientious objections, and the number unvaccinated for the year ending August 31st, 1912:—

#### BOROUGH OF BURY.

Births	Bury North 590	Sou 37	ry ith '9	Elton 305	• • •	Total I 274
Vaccinated	217	12	28	99	• • •	444
Insusceptible of Vaccination			ı		• • •	I
Conscientious Obj'ct'n Certificates	269	15	53	143	• • •	565
Dead, Unvaccinated	55	3	34	25		114
Postponed by Medical Certificate.	ΙΙ	• • •	4			15
Removal to districts known	7	• • •	4			ΙΙ
Removal to districts unknown	7	I	ig	9	• • •	35
Unaccounted for	24	3	36	29	• • •	89

Table showing percentage of Vaccination, and also comparison with the years 1911, 1910, 1909, 1908, 1907, 1906, 1905:—

		Year ending August 31st. 1912 1911 1910 1909 1908 1907 1906 1905											
N7 1 0 2 2 1	1912	1911	1910	1909	1908	1907	1906	1905					
Number of Births	1,274	1,282	1,288	1,303	1,433	1,370	1,278	1,308					
Vaccinated	34.85	33'39	41.07	40.44	42.08	52.40	59.31	68.13					
Con. objection Cert's	44.35	43.14	41.77	41'21	36.14	24.89	16.66	10.63					
Unaccounted for	6.98	5.85	2.64	3.91	4'12	5.47	5.48	3.51					

From the above table it will be seen that the percentage of children Vaccinated shows an increase of over one per cent., as compared with the previous year; whilst the percentage of objection certificates granted also shows an increase of over one per cent.

# THE PUBLIC HEALTH (Cerebro-Spinal Fever and Acute Poliomyelitis) REGULATIONS, 1912.

The above Regulations came into force on September 1st, 1912, and contain the following provisions:—

ARTICLE III.—Subject as provided in these Regulations the persons mentioned in Section 3 of the Infectious Disease (Notification) Act, 1889 (hereinafter referred to as "the Act of 1889"), and the Local Authority shall, under these Regulations, have the same powers and duties in relation to cases of Cerebro-Spinal Fever and of Acute Poliomyelitis as they have under that Act and under the Infectious Disease (Prevention) Act, 1890, and under the Public Health Acts in the case of infectious diseases to which the Act of 1889 applies.

ARTICLE IV.—Every medical practitioner who sends to the Medical Officer of Health a certificate of a case of Cerebro-Spinal Fever or Acute Poliomyelitis under the Act of 1889 or under these Regulations shall at the same time state on the certificate the age and sex of the patient and the date of the onset of the disease.

ARTICLE V.—(1) In any district in which the Act of 1889 applies to Cerebro-Spinal Fever and Acute Poliomyelitis by virtue of an Order made by the Local Authority and approved by Us thereunder these Regulations shall not come into operation, except to the extent of the Regulations prescribed by Articles IV. and VI. hereof, until such Order as aforesaid shall expire or shall have been revoked.

- (2) Nothing in these Regulations shall apply or have effect in relation to any district in which cases of Cerebro-Spinal Fever and Acute Poliomyelitis are for the time being required to be notified to the Medical Officer of Health in pursuance of the provisions of a local Act or of an order made thereunder.
- (3) Nothing in these Regulations shall require a medical practitioner to notify any case of Cerebro-Spinal Fever or Acute Poliomyelitis which has already, to his knowledge, been notified under these Regulations or under the Act of 1889.

ARTICLE VI.—The Local Authority shall forthwith cause notice to be given to every medical practitioner practising within the district of the Local Authority of the duties imposed upon him by these Regulations.

ARTICLE VII.—These Regulations may be cited as "The Public Health (Cerebro-Spinal Fever and Acute Poliomyelitis) Regulations, 1912."

Under these Regulations two notifications of Poliomyelitis were received up to the end of the year, one being in Moorside Ward and one in East Ward. The ages were 10 months and four years respectively.

### Ophthalmia Neonatorum.

Notification of the above infectious disease came into force on July 15th, 1912, and from that date up to the end of the year one notification was received at the Health Office. The case occurred in Elton Ward, and the age of the child was three days.

## SCHOOLS AND INFECTIOUS DISEASES, 1912.

During the year 695 notifications were received at the Health Office from the Headmasters and Headmistresses of the various schools within the Borough, of the existence of Infectious or Contagious Diseases among the scholars attending their schools. Of this number 616 were certified as suffering from one or other of the under-mentioned ailments:—

Measles	188
Mumps	I 2
Whooping Cough	290
Chicken Pox	85
Ringworm	ΙI
Eczema	8
Sore Head	3
Sore Eyes	3
Impetigo	3
Bronchitis	I
Influenza	I
Chorea	I
Scarlet Fever	8
Diphtheria	2

The number of notifications received from the various schools during the years 1908, 1909, 1910, and 1911 were 684, 989, 589, and 1,074 respectively.

The following are the schools from which notifications were received in the order of number of notifications:-

St. Mark's School.

Elton Council School.

Holy Trinity School.

Chesham School.

St. Stephen's School.

All Saints' School.

St. Chad's School.

Christian Church School.

Guardian Angels' School.

St. Joseph's School.

East Ward Council School.

St. Perer's School.

Parish Church School.

Walmersley School.

George Street School.

St. Paul's (Huntley) School.

St. John's School.

Warth School.

Brunswick School.

Clerke Street School.

St. Paul's (Bell) School.

St. Mary's School.

#### SCHOOL CLOSURE.

During the year the Infants' Departments of six public elementary schools have been closed at different periods, on account of the prevalence of Infectious Diseases amongst the scholars.

The following is a list of schools, showing the period during which they were closed and the period of closing:—

School

Period closed

Disease

Holy Trinity ... Feb. 2nd to Feb. 26th..... Whooping Cough.

St. Peter's..... Mar. 8th to Mar. 31st.....Measles and

Whooping Cough.

Warth Fold ...

Apr. 29th to May 17th..... Whooping Cough

Chesham.....

and Chickenpox.

May 17th to May 29th..... Whooping Cough

and Chickenpox.

St. Mark's.....

May 17th to May 29th.....Measles.

All Saints'.....

July 22nd to July 26th.....Measles.

### DISINFECTION.

In each case after the closure of a school the walls, desks, floors, &c., have been sprayed with a solution of formalin or

"Chloros," the rooms afterwards being fumigated with sulphur, special attention being given to the books, &c., used by the scholars.

Mention might also be made of the co-operation of the School Managers with the Health Department in their endeavours to prevent and control infectious diseases. Much valuable assistance has also been rendered by clergymen and others to the Department by not holding classes in the schoolrooms on Sundays during the period of closure of the day school for an infectious disease.

#### MEASLES.

Number	of	cases	notified	by	School	Auth	orities	 	215
Number	of	death	S					 	8

Only eight deaths occurred from Measles during the year, representing a rate of 0.13 per 1,000 of the population, as compared with 26 deaths and a rate of 0.44 per 1,000 during the year 1911.

Measles is looked upon far too lightly by parents. It is usually considered a trivial ailment and one which every child must have sooner or later. But when one considers that during the last ten years (1902-11) 202 deaths were caused by Measles alone in Bury, whilst during the same period only 65 deaths were attributed to Scarlet Fever, which is looked upon by the public as a far more dangerous disease, the seriousness of Measles is at once apparent.

Measles is a "preventable disease," but, unfortunately, it is extremely infectious before the rash appears and the true nature of the disease becomes evident. In its earlier stages it resembles a common cold, and thus children are often sent to school in an infective condition.

The older the child is when it contracts Measles the better are its chances of recovery, as is evident from the fact that out of the eight deaths from the disease during the year 1912, seven occurred in children under five years of age.

#### WARD DISTRIBUTION OF FATAL CASES.

Moorside.	East.	Church.	Redvales.	Elton.	Total.

#### Monthly Record of Deaths.

Jan. Feb. Mar. April. May. June. July. Aug. Sep. Oct. Nov. Dec. Total.

#### SCHOOL CLOSURE.

During the year it was found advisable to close the Infants' Departments of three elementary schools in the Borough, on account of the prevalence of Measles amongst the scholars. The following are particulars of the three schools closed:—

St. Peter's ... ... Mar. 8th to Mar. 31st ... ... Measles.

(Also for Whooping Cough.)

St. Mark's ... ... May 17th to May 29th ... ... Measles.

All Saints' ... ... July 22nd to July 26th ... ... Measles.

PRECAUTIONARY MEASURES.—The following precautionary measures are adopted in dealing with the outbreaks of Measles:—

- (i.) Notification of the disease by School Teachers on printed forms supplied by the Health Department. (215 cases of Measles were thus notified during the year, and of these 188 were verified by the Health Department).
- (ii.) Each case is visited, where possible, by the Health Visitor, who leaves handbills, and gives advice as to the precautions to be taken in each instance.
- (iii.) Closure of Schools, chiefly the Infants' Departments, affected by the disease. A request is made also to the Sunday School Authorities to have this portion of the School closed during the period of closure of the Day School.
- (iv.) Disinfection of houses affected, by means of formalin spray, &c., where consent can be obtained.
- (v.) Thorough disinfection of affected Schools, with special attention to books, desks, &c.

On several occasions during the year handbills containing the following information were distributed at various schools and in different parts of the town where the disease was most prevalent:—

COUNTY BOROUGH OF BURY.

#### MEASLES AND ITS PREVENTION.

Measles is a dangerous disease, one of the most dangerous with which a child under five years of age can be attacked. During the year 1898, the number of deaths from Measles in Bury exceeded not only that from either Typhoid Fever or Influenza, but also that of the total number from Scarlet Fever, Diphtheria, Croup, and Continued Fever combined.

During the year 1900, Measles caused more than four times the number of deaths which resulted from Scarlet Fever, and more than the total number of deaths from Scarlet Fever in the three years 1898-1899-1900.

The disease is especially apt to be fatal to teething children. It tends to kill by producing inflammation of the lungs, and may prepare the way for consumption. Permanent damage to the eyes and ears may result from an attack of Measles.

Measles is therefore not such a trifling disease as is generally assumed. The older a child the less likely it is to catch Measles, and if it does, the less likely is it to die. If every child could be protected from Measles until it has passed its fifth year, the mortality from Measles would be very greatly diminished.

It is therefore a great mistake to say "The sooner the better" for a child to have Measles. The early signs of Measles are the following:—The face is flushed, the eyes are watery, glistening and sensitive to light, there is usually cough, sneezing, and running from the nose (signs similar to those of a bad cold in the head). During this period (before the rash comes out) the child is highly infectious, and should not be sent to school, and any child observed with these symptoms in school should be sent home at once.

#### Precautions.

Mothers with children in arms should not go into houses where Measles exists.

Every child ill of Measles should be put to bed and kept warm; a doctor should be called in, except in the mildest cases.

A case of Measles continues infectious for at least three weeks after the appearance of the rash.

The importance of isolating the patient from other children for this period should be remembered.

Children from the house in which there is a case of Measles must be kept from school unless they are over seven years of age, attending the Mixed Department, and have already had the disease. On no account must any child from an infected house be allowed to attend the Infants' Department of a school, whether he has previously had the disease or not.

Disinfectants can be obtained on application to the Health Department, Parsons Lane. Disinfection of rooms, clothing, &c., will be undertaken by this department free of charge.

G. GRANVILLE BUCKLEY,

Medical Officer of Health.

#### WHOOPING COUGH.

Number of cases notified through School Authorities	328
Number of deaths	

During the year Whooping Cough has been responsible for 22 deaths, which is equal to a rate of 0.37 per 1,000 of the population, as compared with 12 deaths and a rate of 0.20 per 1,000 in the previous year.

On the 328 cases notified by the school authorities as suspected cases of Whooping Cough being visited, it was found that 290 were suffering from the disease.

From the undermentioned table, regarding the age periods, it will be seen that Whooping Cough is most fatal in children under one year of age, the number of deaths diminishing as the ages increase. Although this disease is generally most prevalent in children, it is sometimes observed in adults, the symptoms being much the same as those in the child, but there is a less tendency to dangerous complications.

DEATHS FROM WHOOPING COUGH DURING THE LAST TEN YEARS.

1902	1903	1904	1905	1906	1907	1908	909	1910	1911	Average.	1912
IO	7	42	I	6	27	6	13	Ο	Ι2	12.4	22

#### AGE DISTRIBUTION.

Under 1	1 and	under	2 2	and und	ler 5	5 and u	nder 15	All Ages.
ΙI		7 .		. 3		I	• • • • • • • • •	22

#### WARD DISTRIBUTION.

Ward.	No. of Deaths.
Moorside	3
East	6
Church	5
Redvales	I
Elton	7

#### MONTHLY INCIDENCE.

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.
4	5	3	4	I	2	I	2			<u>·</u>		22

### QUARTERLY INCIDENCE.

ıst Quarter	2nd Quarter	3rd Quarter	4th Quarter	Whole Year.
12	7	3		22

School Closure.—It was found necessary during the earlier part of the year to close the Infants' Departments of several elementary schools owing to the prevalence of Whooping Cough amongst the scholars. The following are particulars of the closures:—

School.	Period closed.		Disease.				
Holy Trinity	Feb. 2nd to Feb.	. 26th	Whooping (	Cough.			
St. Peter's	Mar. 8th to Mar	. 31st	Whooping (	Cough.			
			(Also for Me	easles.)			
Warth Fold	Apr. 29th to May	17th	Whooping (	Cough.			
		(A	lso for Chicke	enpox.)			
Chesham	May 17th to May	29th	Whooping (	Cough.			
		(A	lso for Chicke	npox.)			

Handbills, of which the following is the text, were extensively distributed at different periods during the first few months of the year:—

#### WHOOPING COUGH.

Whooping Cough is a very serious disease, and is especially fatal in children under the age of five years. During the year 1900 Whooping Cough caused over six times the number of deaths that resulted from Scarlet Fever.

Whooping begins like a common cold or chest cough, which lasts a week or more, then fits of coughing set in, each of these finishing with a long-drawn "whoop." These fits are usually worse at nights, and are more liable to occur if the child be startled or agitated. Vomiting commonly occurs at the end of a fit. Bleeding at the nose and bloodshot eyes may result. The disease usually lasts two months or more. Babies and young children take Whooping Cough most readily; the disease often follows Measles.

Whooping Cough is very infectious, being readily conveyed from one child to another. Articles of clothing and domestic animals may also convey the infection.

Precautions.—The patient should be isolated and kept warm in a room at an even temperature. If the patient cannot be isolated it is desirable that other children in the same household be sent away, more particularly those under the age of seven years. If a doctor be called in early the disease can often be "cut short" or the cough modified to a great extent. Discharges from the nose and eyes should be received on small pieces of clean linen rag, which should be immediately burnt. A damp cloth wrung out of disinfectant solution should be used to cleanse any surface on which the discharges (vomit, &c.) have come into contact.

The patient should not attend school until all cough has disappeared, a period usually of at least eight weeks. Children from the house in which there is a patient suffering from Whooping Cough should on no account attend either day or Sunday school for at least three weeks after isolation of the sufferer.

Mothers with children in arms should not visit houses in which Whooping Cough is known to exist, and should use every endeavour to prevent young children from going near such houses.

Disinfectants can be obtained on application to the Health Department, Parsons Lane, and at the Gas Works, Elton. Disinfection of rooms, clothing, &c., will be undertaken by the Health Department, free of charge.

G. GRANVILLE BUCKLEY,

Medical Officer of Health.

#### DIARRHŒA.

During the year only fourteen deaths from Diarrhæa have been registered, which is equal to a rate of 0.24 per 1,000 of the population, as compared with 65 deaths and a rate of 1.11 per 1,000 in the previous year, and 25 deaths and a rate of 0.42 per 1,000 in the year 1910.

It will be seen on referring to the age periods that eleven of the deaths occurred in children under one year of age. As a general rule this disease is most prevalent in children between the ages of three months and one year. The infants who suffer most are the weakly dyspeptic ones who are badly fed and improperly cared for, in many instances the mother having to go out to work and the child put out to nurse. Diarrhæa is much more prevalent and fatal in the large towns than in the country districts, and much more common amongst the poorer classes of people living in houses of the back-to-back type and crowded courts, &c., where there is little fresh air and the standard of cleanliness is low. Under such conditions milk and other foods have to be kept in the small and crowded living rooms, and are readily contaminated.

The infants who suffer least are the breast-fed ones, as will be seen from the under-mentioned table, which shows the number of diarrhæa deaths of children under one year of age for the past eight years, and also shows the percentage of infants who have been fed by breast and the percentage fed by bottle.

#### DIARRHŒA DEATHS.

Year	No. of Deaths	Bottle Fed	Breast Fed.
1905	33	27, or 81.82 per cent.	6, or 18.18 per cent.
1906	43	35, or 81.40 per cent.	8, or 18.60 per cent.
1907	9	6, or 66.60 per cent.	3, or 33.40 per cent.
1908	20	13, or 65.00 per cent	5, or 35.00 per cent.
1909	12	11, or 91.67 per cent.	1, or 8.33 per cent.
1910	19	17, or 89.47 per cent	2, or 10.53 per cent.
1911	45	45, or 100.00 per cent.	o, or o.oo per cent.
1912	II	8, or 72.72 per cent.	3, or 27.28 per cent.

#### MONTHLY INCIDENCE.

January	
February	1
March	
April	
May	on your and the
June	I
July	3
August	5
September	1
October	
November	3
December	

## WARD DISTRIBUTION.

Ward			r of Deaths.
Moorside			4
East	• • •		
Church			4
Redvales	• • •		2
Elton	• • •		4
Whole Borough		• • •	14

#### AGE PERIODS.

Under 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 45	45 to	65	65 u	pwar	ds	Total
11						I		٠	2		14

#### Comparative Mortality Rates in 1912.

The death rate from Diarrhæa in Bury compares very favourably with the mortality rates in the other large towns, the rates for other Lancashire towns being as follows:—

Blackburn	0.29
Bolton	0.09
Bootle	0.56
Burnley	0.48
Bury	0.24
Halifax	0.19
Oldham	0.3
St. Helens	0.19
Wigan	0.41

It will thus be seen that the Diarrhœa death rate in Bury compares favourably with other Lancashire towns.

CLEANING OF STREETS, &c.—With a view of minimising to some extent the various factors which have been considered to have a causal relation to Summer Diarrhæa, the following special methods of cleansing were adopted during the period from May to the end of September:—(a) The sweeping of streets was carried out during the night-time, the combined street-watering and brushing machines being used (except in wet weather). (b) The collection of stable refuse, &c., during the daytime, by men with handcarts (orderly men), was extended to all the streets. (c) In addition to the principal thoroughfares, special attention was paid to the watering of secondary and other streets. (d) Special attention to the emptying of sanitary conveniences, especially those of the "Pail" and "Privy Midden" types. (e) After the emptying of contents from the latter types of conveniences the interiors of same were limewashed by means of a sprayer, with a sanitary lime. (f) The emptying of street gullies direct into a tank cart, the gulley afterwards being sealed with clean water, to which had been added a soluble disinfectant.

#### INFLUENZA.

Four deaths were attributed to Influenza during the year 1912. This represents a mortality rate of 0.07 per 1,000 as compared with seven deaths and a rate of 0.13 per 1,000 in the previous year.

Deaths from Influenza during 1912 as compared with the ten preceding years:—

```
1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 Average 1912 6 5 11 10 7 10 13 10 7 8 8.7 4
```

AGE DISTRIBUTION.—One death has occurred between the ages of 15 to 25 years, one between 25 and 45, one between 45 and 65, and one was of a person over 65 years of age.

Ward Di	STRIBUTI	ON			
			Redvales I		Whole Borough 4
Quarteri	Y INCIDI	ENCE-			
ıst Quarter	2nd Quart	er 3rd Qr	uarter 4th —	Quarter	Whole Year

#### TUBERCULOUS DISEASES.

#### PHTHISIS.

Phthisis caused 77 deaths, of which 47 were of males and 30 females. The rate or mortality was 1.30 per 1,000, as compared with a rate of 0.97 per 1,000 in the previous year. Nineteen of the deaths occurred in the Union Workhouse.

The age and sex distribution of the cases was as follows:—
Under 1 1 to 5 5 to 15 15 to 25 25 to 45 45 to 65 65 upwards Total
Males $   -$
Females 1 1 2 7 13 6 — 30
Mean Age at Death from Phthisis.
Males 41.9
Females 31.1
Ward Distribution of Deaths from Phthisis.
Moorside East Church Redvales Elton Total
Males 5 7 16 7 12 47
Females 6 11 2 9 30
DEATH RATES FOR PHTHISIS IN THE SEVERAL WARDS.
Moorside East Church Redvales Elton
0.77 1.49 2.44 0.81 1.51
Quarterly Incidence of Phthisis.
rst Quarter 2nd Quarter 3rd Quarter 4th Quarter Whole Year
25 16 19 17 77

DISINFECTION.—Sixty-seven rooms in 23 houses have been disinfected with the fumes of formalin, and the walls of 128 rooms in 42 houses have been sprayed with a solution of formalin after the occurrence of deaths from Phthisis.

## OCCUPATIONS OF PERSONS DYING FROM PHTHISIS DURING THE YEARS 1902-1912.

		1903									
Cotton Operatives	13	16	ΙI	ΙO	13	15	9	16	13	ΙΙ	9
Woollen Operatives	Ο	2	Ο	Ι	Ο	Ο	Ο	Ο	I	Ο	Ι
Felt Hat Workers	3	2	2	Ι	3	Ο	Ι	Ο	3	Ο	Ι
Paper Mill Workers	2	2	Ο	O	I	4	0	2	2.	I	I
Iron Operatives	ΙI	8	6	8	2	6	5	6	6	2	2
Stone Masons	2	Ο	5	2	3	2	Ο	3	I	Ο	I
Dressmakers and Tailors	3	Ο	2	5	I	1	I	Ο	Ο	3	0
Joiners and Cabinetmakers	2	2	3	2	2	О	2	Ο	3	I	0
Shoemakers and Cloggers	2	Ο	2	Ο	Ο	Ο	Ο	2	1	Ο	I
Clerks	Ο	2	I	I	Ι	Ο	Ο	3	0	Ο	Ι
Outdoor Labourers & Carters	10	6	25	7	16	13	19	Ι2	6	7	14
Other or no employment	27	29	40	36	32	25	26	27	37	32	46
Totals	75	69	97	73	74	66	63	71	73	57	77

The class "outdoor labourers and carters" cannot be taken as an accurate description of the real occupation of the fatal cases so described, for many of them, who originally followed other employment, changed it for an outdoor one later, on medical advice.

OTHER TUBERCULOUS DISEASES.—Twenty-six deaths resulted from tuberculous diseases other than Phthisis, as compared with 26 deaths in the previous year.

The age distribution was as follows:—

Under 1 1 to 2 2 to 5 5 to 15 15 to 25 25 to 35 35 to 45 45 upwards Tota

5 ... 2 ... 5 ... 4 ... 3 ... 3 ... 2 ... 26

Tuberculosis, therefore, was responsible for 103 deaths altogether, which is equivalent to a rate of 1.74 per 1,000.

In other words, one out of every eight deaths in Bury is due to some form of Consumption.

Bacteriological Examination of Sputum.—The sputa of 50 suspected cases of Phthisis were sent in special tins to the Public Health Laboratories, Manchester. Tubercle Bacilli were found in 15 cases, and a negative result was obtained in 35 cases.

Deaths from Phthisis in Bury during the Past 10 Years:—

1903 1904 1905 1906 1907 1908 1909 1910 1911 1912

69 ... 97 ... 73 ... 74 ... 66 ... 63 ... 71 ... 73 ... 57 ... 77

The number of persons engaged in the cotton trade in Bury at the \*1901 census was 11,035, of which 3,155 were males and 7,880 females.

\* The figures relating to the 1911 census are not yet to hand.

#### PHTHISIS RATE.

Whole District ... ... ... ... ... ... ... ... 1.30 per 1,000. Of persons engaged in the Cotton Trade ... 0.81 per 1,000.

PUBLIC HEALTH (Tuberculosis) REGULATIONS, 1908.

PUBLIC HEALTH (Tuberculosis in Hospitals) REGULATIONS, 1911.

PUBLIC HEALTH (Tuberculosis) REGULATIONS, 1911.

The Public Health (Tuberculosis) Regulations, 1908, is an Order of the Local Government Board, and makes compulsory the notification to Medical Officers of Health of cases of Phthisis occurring in Poor Law Institutions, or amongst persons in charge of District Medical Officers. The Order came into force on January 1st, 1909, and during the year 46 notifications were received at the Health Office, as follows:—

- FORM D.—Notifications from Relieving Officers of change of address of Phthisis patients in their districts ... ... o

Of the 46 notified cases, 29 were males and 17 females.

Notification was extended by the Regulations as to Tuberculosis in Hospitals, 1911. This Order came into force on May 1st, 1911, and under these Regulations eleven notifications have been received, seven of which were males and four females.

The Public Health (Tuberculosis) Regulations, 1911, came into operation on January 1st, 1912, and contain the following provisions:—

ARTICLE IV.—(1) Subject as provided in Articles X., XI., and XII. of these Regulations every Medical Practitioner attending on or called in to visit any person shall, within forty-eight hours after first becoming aware that such person is suffering from Pulmonary Tuberculosis, complete, sign and transmit a notification of the case in the form shown in the Schedule A. to these Regulations to the Medical Officer of Health for the area within which the place of residence of the person is situate:

Provided that a Medical Practitioner shall not be required under these Regulations to notify any case of Pulmonary Tuberculosis which has already, to his knowledge, under these Regulations or under the Poor Law Regulations or under the Hospital Regulations, been notified to the Medical Officer of Health for the area within which the place of residence of the patient is situate.

(2) Every Medical Practitioner who is a School Medical Inspector shall, within the period of forty-eight hours after he has inspected any children attending a Public Elementary School, complete and sign a notification in the form shown in the Schedule B. to these Regulations of all cases of Pulmonary Tuberculosis of which he became aware during the course of the inspection, and shall transmit the notification to the Medical Officer of Health for the area within which the Public Elementary School is situate.

ARTICLE VII.—(I) A Medical Officer of Health who receives from a Medical Practitioner a notification relating to a patient whose place of residence is not within the area for which he is Medical Officer of Health, shall forthwith transmit the notification to the Medical Officer of Health for the area in which the place of residence of the patient is situate, and shall at the same time

inform the Medical Practitioner that he has done so and shall give to him the name and address of the Medical Officer of Health to whom the notification has been sent. Any expenses incurred by a Medical Officer of Health in carrying out the duties imposed upon him by this sub-division shall be defrayed by the Council of the area for which he is Medical Officer of Health.

(2) Every Medical Officer of Health shall enter in a Register to be kept by him for that purpose the full particulars contained in every notification received by him under these Regulations or under the Poor Law Regulations or under the Hospital Regulations and relating to a patient whose place of residence is situate within the area for which he is Medical Officer of Health. The said Register shall be kept in the custody of the Medical Officer of Health and shall not be open to inspection by any person other than a person specially authorised by resolution of the Council, the Medical Officer of Health for the Administrative County within which the area is situate, any School Medical Inspector acting within the area, or an Officer of the Local Government Board or of the Board of Education.

ARTICLE VIII.—Upon the receipt of a notification under these Regulations or under the Poor Law Regulations or under the Hospital Regulations the Medical Officer of Health, or an Officer acting under the instructions of the Medical Officer of Health, shall make such inquiries and take such steps as may appear to him to be necessary or desirable for preventing the spread of infection and for removing conditions favourable to infection:

Provided that nothing in this Article shall be deemed to authorise a Medical Officer of Health or other Officer to take any of the steps herein mentioned at any Poor Law Institution or any Hospital.

ARTICLE IX.—(1) For the purposes of these Regulations and of the Poor Law Regulations and of the Hospital Regulations a Council, on the advice of their Medical Officer of Health, may supply all such medical or other assistance, and all such facilities and articles as may reasonably be required for the detection of Pulmonary Tuberculosis, and for preventing the spread of infection

and for removing conditions favourable to infection, and for that purpose may appoint such officers, do such acts and make such arrangements as may be necessary.

(2) A Council, on the advice of their Medical Officer of Health, may provide and publish or distribute in the form of placards, handbills, or leaflets, suitable summaries of information and instruction respecting Pulmonary Tuberculosis, and the precautions to be taken against the spread of infection from that disease.

ARTICLE XIII.—Nothing in these Regulations shall have effect so as to apply, or so as to authorise or require a Medical Officer of Health or a Council, or any other person or authority, directly or indirectly, to put in force with respect to any patient in relation to whom a notification in pursuance of these Regulations has been transmitted to a Medical Officer of Health, any enactment which renders the patient, or a person in charge of the patient, or any other person, liable to a penalty, or subjects the patient to any restriction, prohibition, or disability affecting himself, or his employment, occupation, or means of livelihood, on the ground of his suffering from Pulmonary Tuberculosis.

Under these regulations 139 notifications have been received during the year.

The age distribution was as follows:—

Under 1 1 to 5 5 to 15 15 to 25 25 to 45 45 to 65 Over 65 Total
2 — 13 31 61 29 3 139
WARD DISTRIBUTION.
Moorside 38 Redvales 29
East 27 Elton 29
Church 16
The following list gives the number of cases notified during
the year under the various Regulations:—
Public Health (Tuberculosis) Regulations, 1908 46
Public Health (Tuberculosis in Hospitals) Regulations, 1911 13
Public Health (Tuberculosis) Regulations, 1911

After notification, where possible the cases were visited by Nurse Hampton, and suitable advice given re methods of dealing

with sputum and prevention of spread of the disease. Disinfectant solutions, paper handkerchiefs, and spittoons were supplied gratis to the patients. Subsequent visits were also paid by the Lady Inspector to ensure that the instructions were being carried out, and to give advice about the nursing of the patients, many of whom were in the last stage of the disease. A card was left at each of the patients' homes containing the following information:

#### COUNTY BOROUGH OF BURY.

#### ADVICE TO CONSUMPTIVE PERSONS.

Consumption is a preventable ailment, and yet every year in this country over 60,000 deaths are due to it.

It is not inherited, but is caught from a person who is suffering from the disease.

It affects principally the lungs, intestines and glands, and is a disease which, if proper precautions are taken, can be prevented from spreading to others.

Cause.—Some persons are born with a constitution which strongly favours their catching Consumption, and intemperance, overcrowding, bad ventilation, darkness and dampness, increase this tendency, and render otherwise healthy people liable to it.

The real cause of the disease is a minute germ, which is present in very large numbers in all discharges from Consumptive sores, and in the spit or expectoration when the lungs are affected. The chief methods of infection are as follows:—

- (a) If the discharges or spit are allowed to become dry, the dust and the germs get into the air, and are breathed by other persons, who may thus have the disease set up in their lungs; in the same manner an extension of the disease may be caused in the affected person.
- (b) The dust also, if allowed to settle on food, may convey the disease to the intestines.
- (c) The disease may also be started in the bowel by drinking unboiled milk from a cow affected with the disease, and probably also by eating the meat of such an animal.

Prevention.—If proper precautions are taken there is no danger from living or being in company with persons suffering from Consumption.

The chief precaution is to destroy the spit or discharges before they become dry.

Indoors.—A consumptive person must never spit upon the floor or into a handkerchief which has to be put into the pocket or under the pillow again, and great care should be taken that the spit is not smeared on the bedclothes, &c. A spit cup or small jar, containing a little water and some disinfectant, should be used to collect the expectoration, or the person should spit into a piece of paper, which can be burned at once. Paper handkerchiefs for this purpose may be obtained free of charge at the Health Office, Parsons Lane, by persons suffering from Consumption. and fresh air are the greatest enemies of Consumption, and the more a Consumptive person gets of both of them the better. windows should be kept open as much as possible, and fireplaces should never be blocked up. In cleaning infected rooms, damp dusters should be used, and wet tea leaves or sawdust should be sprinkled on the floor before sweeping, so that the dust will not be spread through the air. The dusters should be boiled and the sawdust or tea leaves burnt.

Out of doors and in workshops, &c., the patient should carry a special spit bottle and use this for the collection of spit. A Consumptive person should never spit on the footpath or on the floor of any building, tramcar, cab, railway or other carriage. Receptacles for the expectoration should be emptied as frequently as convenient into a drain or water-closet, or preferably the contents should be burnt. A Consumptive should have a set of spoons, cups, and other utensils reserved for his or her special use, and after being used they should be scalded and washed in hot water before being used again. No mother who is Consumptive should suckle her baby. Milk should be boiled before drinking. Consumption is frequently cured, but as long as a patient is constantly re-inhaling the germs there is every probability that the disease will become incurable.

DISINFECTION.—After the death of a Consumptive person it is necessary that the infected rooms should be thoroughly disinfected and cleansed.

N.B.—Further instructions will be given, and the necessary disinfection carried out, free of cost, in any case reported to the Health Department.

G. GRANVILLE BUCKLEY, M.D., D.P.H.,
Medical Officer of Health.

Health Office, Parsons Lane, Bury.

#### AITKEN SANATORIUM.

During the year under review 63 patients have been admitted to the Aitken Sanatorium at Holcombe Brook. The function of the Sanatorium is twofold, viz.: (a) Educational and (b) Curative.

Each patient admitted to the Institution is there educated in all matters appertaining to his general health, and avoidance of spread of infection to others. He is given an abundance of good food, and practically lives in the open air. His stay in the Sanatorium varies from a month upwards, at the discretion of the Medical Superintendent.

When the patient is discharged a note is sent to the Medical Officer of Health, and the case is periodically re-visited by the Health Visitor.

The table on pages 66 and 67 gives some particulars of the 63 patients from Bury who have been discharged from the Sanatorium between January 1st and December 31st, 1912.

Enquiries were made in December, 1912, as to the state of health of the patients at that time, and the results are given in the 13th column. From this it will be seen that nine of them (14.28 per cent.) had died in the meantime, while, as shown in the last column, two others have died since the enquiries were made.

Report of Investigation after discharge from Aitken Sanatorium, on condition of persons suffering from Phthisis.

REMARKS	Removed—address not known	Since deceased	Removed—address not known Since deceased	Removed—address not known	Removed—address not known Re-admitted Removed—address not known	Has to work to keep family Removed—address not known	Removed—address not known	10
Period of Working since Discharge	Regular —	  Regular 			Regular	Irregular None 	Regular None Regular	14
Present State of Health (Dec. 1912)	Good Good Good Deceased	Worse Worse Deceased Fair Deceased	Deceased Worse Good	Deceased Good Good Good Good	Fair Good — Deceased Good	Worse Fair Good Good	Good Fair Worse Good	13
Condition on Discharge	Greatly improved Greatly improved Greatly improved No improvement Slightly improved	Greatly improved Slightly improved Improved Slightly improved	Improved No improvement No improvement Improved	Improved Improved Greatly improved Greatly improved Greatly improved Improved	Improved Improved Improved No improvement Greatly improved	Improved Greatly improved Greatly improved Greatly improved Greatly improved	Improved Greatly improved Improved Slightly improved Greatly improved	12
No. of days m'tsns? ni	278 66 184 107 208	255 290 290	243 54 247 185				128 128 126 163 70	11
Date of Discharge	Jan. 8, 1912 Jan. 10, ", Jan. 13, ", Jan. 15, ", Jan. 15, ",	Jan. 16, ", Feb. 3, ", Feb. 17, ", Feb. 24, ",	5,7,4,4 6,7,4,4	7, 99, 110, , , , , , , , , , , , , , , , , , ,	15,	25,		10
Date of Admissi'n to Sanatorium	April 6, 1911 Nov. 6, ", July 14, ", Sep. 29, ", June 22, ",	July 25, ", Jan. 1, ", June 8, ", May 11, ",	June 27, ", Jan. 2, 1912 June 26, 1911 Sep. 4, ",		June 8, ", Aug. 12, ", Sep. 25, ", April 10, 1912 Nov. 27, 1911	Dec. 6, ", Nov. 4, ", Nov. 15, ", Feb. 24, 1912 Dec. 1, 1911	Jan. 2, 1312 Jan. 18, 1311 Dec. 12, 1311 Mar. 30, 1912	6
No. in Family	4 c 0 l c c c	00   00		01-2000 CC		44590	44000	$\infty$
No. of Rooms in House	444000	7444	04441	W44444	14494	444594	144100	2
Home circum-stances	Fair Good Poor Poor	Good Good Good	Good Good Good	Fair Foor Foor Good	Foor Fair Good Poor	Foor Good Good Poor	Poor Good Good	9
Occupation	Weaver Labourer School Spinner Spinner Warehouseman	House duties Weaver Weaver Guard	Weaver Labourer House duties	Weaver Weaver Confectioner Tailor House duties None	Labourer Labourer Clerk School	Winder Postman Labourer Bleachworks School	Spinner School Weaver Fitter	ī.
heirrall ergais to	w K w w K w		v K K v v	n w z z z w w w	Z W K W K	z z w z w w	i w w w z	4
Sex Age	20 40 33 46 20 20 20 20 20 20 20 20 20 20 20 20 20	22222	22222	22 16 25 17 17	246 249 121 241 241	28 28 13 10 10	117	က
ω <sub>ν</sub>	ZZHZHZ	HHHH	Z Z Z E E E E	HENNER			4444	7

15	Removed—address not known  Gone to Bournemouth  Removed—address not known  Removed—address not known
14	Regular Regular None Regular None None None None None None None None
13	Good Good Fair Good Good Good Good Good Fair Good Good Fair Good Fair Fair Fair Fair Fair Fair Fair Fair
12	Improved Improved Improved Improved Improved Greatly improved Greatly improved Greatly improved No improvement Improved No improved Improv
11	264 258 239 126 29 146 46 46 46 36 193 193 27 191 199 100 191 250 118 128 118 118 118 118 118 118 118 118
10	June 15, 1912 June 25, July 2, July 24, Aug. 14, Aug. 15, Aug. 15, Aug. 22, Aug. 20, Aug. 50, Aug. 51, Sep. 11, Sep. 11, Sep. 11, Oct. 12, Oct. 17,
6	Sep. 21, 1911 Sep. 30, Oct. 31, Feb. 28, 1912 June 20, Feb. 13, July 2, July 18, Feb. 20, July 5, July 5, Feb. 27, Feb. 19, July 8, July 8, July 8, July 8, July 8, April 4, Mar. 28, May 13, July 22, May 24, May 34, Aug. 5, Aug. 5, July 3, July 3, Aug. 5, Aug. 12,
∞	
7	404048444444004440484404
9	Fair Fair Fair Fair Fair Fair Fair Good Good Good Good Good Good Good Fair Fair Fair Fair Fair Fair Fair Fair
5	Hat Maker Labourer Bleachworks Fitter Rag Sorter Innkeeper Weaver Weaver Weaver None Weaver None Paper Sorter Currier Paper Sorter School Plumber Fitter Packer Carter Spinner Weaver Spinner Weaver
4	KANANAZZANZZANZZANZZANAZZANANANZZ
က	252 252 253 253 253 253 253 253 253 253
2	**********************
	525 525 525 525 525 525 525 525

## CANCER.

During the year 42 deaths (equal to a mortality of 0.71 per 1,000) were registered as due to various forms of malignant disease. Of these deaths, 15 were males and 27 females.

Sex and Age	Unde	r 35	35 to 2	15	45 to	55	55 to	65	6	5 to 75	C	)ver 75	7	Γotal
Males		-		• • •	. I		8			6			• . •	15
Female	s I		2	• • •	. 7		9			7		1		27

The following table gives the ward distribution of these deaths, and the rate of mortality in each ward, as compared with the corresponding figures for each of the four preceding years:—

Ward.	No.	1908. Rate per 000.	No.	. Rate	per	No.	1910. Rate per	N	1911. To. Rate 1000.	per	No.	Rate per
Moorside	8	0.54	15	1.01		8	0.54	17	1'20		12	0.84
East	12	1.08	8	0.66	• •	9	0.74	12	0.94		7	0.22
Church	8	1.08	14	1,00		11	1.49	5	0.72		4	0.22
Redvales	14	I'2I	8	0.73		7	0.64	7	0.63		I 2	1.08
Elton	15	1.00	12	0.84		7	0.49	5	0.36		7	0.20
T - 1 1												
Totals	57	0.96	57	0.96		42	0.41	46	0.48		42	0.41
			-									

Character of the disease as described on the returns:—

Males Females

	maies.	remaies.
"Cancer"	5	
"Malignant Disease"		
Carcinoma		
Epithelioma		I
Sarcoma		
ORGANS AFFECTED.	Males.	Famalag
-		Females.
Stomach	2	
Intestine		I
Rectum	2	I
Liver	2	8
Bladder	2	
Breast		3
Uterus	<del></del>	
Throat	2	—
Larynx		I
Gall Duct		I
Tonsil	I	—
Pharynx	I	I
Tongue	I	
Pancreas	Ι	
Groin		
	T. C.	
	15	27

## DISINFECTION.

The following is a summary of the disinfection carried out during the year in the reported cases of Infectious Diseases:—

155 rooms in 145 houses were disinfected with the fumes of either sulphur or formaldehyde, and the walls of 311 rooms in 149 houses sprayed with a solution of either formalin or carbolic acid.

305 rooms in 60 houses have been fumigated with sulphur, at the request of either the tenant or owner.

Eight public schools have been fumigated with sulphur, and the desks, books, walls, &c., sprayed with a solution of formalin, the rooms afterwards being disinfected with the fumes of formaldehyde.

In addition the walls of the Dispensary Hospital have several times during the year been sprayed with a solution of formalin, the rooms afterwards being disinfected with the fumes of formaldehyde.

Sixty-seven rooms in 23 houses have been disinfected with the fumes of formalin or sulphur, and the walls of 128 rooms in 42 houses sprayed with a solution of formalin, after the occurrence of deaths from or the removal of cases of Phthisis.

One parcel of infected clothing and 169 sets of infected bedding have been disinfected by steam.

It may be said that in the disinfection of rooms—the spraying of floors, walls, ledges, &c., with either formalin or carbolic or other disinfectant solution before fumigation, is now the routine procedure.

#### WATER SUPPLY.

Public Supply.—The public service of the Borough is derived from three of the Reservoirs belonging to the Bury and District Joint Water Board. The Board represents the following Authorities:—Bury, Radcliffe, Ramsbottom, Tottington, Haslingden, Rawtenstall, Whitefield, Little Lever, and Bury Rural. The area supplied is 80 square miles.

The three Reservoirs supplying Bury are: --

Gin Hall (situated in Bury), supplying 10,337 houses.

Calf Hey (situated in Haslingden borough), supplying 1,976 houses, chiefly in the districts of Limefield, Bell Lane, and Blackford Bridge.

Hapton (situated partly in Rawtenstall borough and partly in Burnley district), supplying 1,514 houses, chiefly in Chesham and Walshaw districts.

The total number of houses supplied at December 31st, 1912, was 13,805.

#### RAINFALL.

Gin Hall	1912. 52.26	 1911. 40.44	 1910. 49.48	 1909. 48.66
Calf Hey	57.71	 46.65	 55.18	 52.41
Hapton	60.06	 53.48	 58.15	 48.97

An average of 56.68 inches, as compared with 46.86 in 1911, 54.27 in 1910, and 50.01 in 1909.

DISTRIBUTION.—137 yards of 2-in., 1,222 yards of 4-in., 432 yards of 6-in., and 249 yards of 12-in. main have been laid as follows:—

Yards.	]	Inches.	Situation.
62		2	Back Bolton Road and South Proctor Street.
75		2	Back Church Street and Brick Street.
18		4	James Street.
46		4	Back Rochdale Road and Back Elm Street.
49		4	Back Wyndham Street.
53		4	Back Chesham New Road.
62		4	Bell Lane and Back Bell Lane.
. 65		4	Back Parkhills Road.
93		4	Britain Street and Back Dumers Lane.
95		4	Back Dumers Lane.
95	• • • • • •	4	Back Rochdale Old Road.
97	• • • • •	4	Gigg Lane.
149		4	Lime Grove, Limefield.
200		4	Back Cateaton Street.
24		6	Walmersley Road, opposite Gin Hall.
30		6	Rochdale Old Road.
64		6	Heywood Street, opposite Killon Street.
314		6	Woodhill Road.
249		12	Market Street.

21 yards of 4-in. main, Haslam Brow; 54 yards of 4-in. main, Old Lane, Walmersley; 124 yards of 4-in. main, Georgiana Street to Margaret Street; 251 yards of 4-in. main, Victoria Street to Wood Street, Elton; 283 yards of 4-in. main, Edward Street; 357 yards of 4-in. main, Margaret Street to South Garden Street; and 90 yards of 8-in. main, Bridge Street, have been renewed.

Flushing operations have been carried out periodically, and several "dead ends" have been renewed.

From January 1st to December 31st there were 268 houses connected to the public service, and 58 houses disconnected.

Water Closets.—During the year the water supply has been connected to 229 baths and 487 water closets, in accordance with the regulations of the Water Works Department.

PRIVATE WATER SUPPLY.—At the end of the year 1912 there were seven houses, 102 cottages, and two schools supplied with water from private sources. The following shows the situation and the number of houses supplied:—

- 4 cottages, Well Brow.
- 1 cottage, Holebottom.

School, Woodgate Hill.

- 1 house, Green Bank.
- 1 house, Chesham.
- 1 house, Chesham Green.
- 1 cottage, Cinder Hill.
- r house, South View.
- 2 cottages, Chesham Green.
- 3 cottages, Cinder Hill.
- 1 cottage, Gipsy Brook.
- I cottage, Chesham.
- 2 cottages, Birchen Bower.
- 2 cottages, Lowes.

- I house, Broom House.
- 4 cottages, Duckworth Fold
- 2 houses, Springs.
- 2 cottages, Springs Cottages.
- 4 cottages, Springs.
- 9 cottages, School Street.
- 1 cottage, Bury Ground.
- 3 cottages, near Bury

Reservoir.

- 3 cottages, Woodhill Fold.
- 12 cottages, Yates Terrace.

School, Woodhill.

- 44 cottages, Woodhill.
  - 3 cottages, Stag Houses.

## FACTORIES AND WORKSHOPS.

FACTORIES.—During the year three notices have been received from His Majesty's Inspector of Factories, all of which have been complied with.

Workshops.—The duty of supervising the workshops in which males are employed is carried out by Inspectors Haworth and Kay, and the Female Inspector (Nurse Hampton) has charge of the workshops in which females only are employed.

General Sanitation.—The workshops, as regards clean-liness, light, air space, &c., have been found to comply with requirements. From a sanitary point of view the conditions under which work is carried on in these rooms is very satisfactory, and it is pleasing to record that any suggestions for further improvement have been carried out by the owners. The number of workshops in the Borough is 390, a decrease of 19 as compared with the previous year.

Bakehouses.—The number of bakehouses on the register is 84, the same number as in the previous year. Inspector Openshaw, who has the bakehouses under supervision, reports that the businesses have been conducted in a very satisfactory manner, a pleasing feature being that no complaints have been received from residents in the vicinity of bakehouses of the excessive emission of smoke.

There are still two cellar bakehouses in the Borough, as in the previous year.

Shop Hours Acts.—The duties of carrying out the provisions of these Acts, also the provisions under the Seats for Shop Assistants' Act, have been entrusted to Nurse Hampton and Inspector Haworth. The Inspectors have paid 118 visits to the various shops in the performance of these duties, and have found that the requirements of the Acts were being carried out.

Home Work.—Lists containing the names and addresses of home workers have been received from two firms and entered in the register. The Inspector (Nurse Hampton) has paid 59 visits to the homes in which the work is carried on, and she reports that in the majority of cases the work is performed under satisfactory conditions,

Extract from Copy of Table sent to the Home Office at the request of the Secretary of State

Annual Report of Medical Officer of Health for 1912, for the County Borough of Bury.

## FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOMEWORK.

#### 1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

	Number of							
Premises.	Inspections.	Written Notices.	Prosecutions.					
Factories (Including Factory Laundries.)	36	5						
Workshops (Including Workshop Laundries.)	162	13	• •					
Workplaces (other than Outworkers' premises)	22	8						
Total	220	26	• •					

#### 2.—DEFECTS FOUND.

	Nu	Number		
Particulars.	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts:—				
Want of cleanliness	4	4	• •	• •
Overcrowding	• •	• •	• •	• •
Want of drainage of floors Other nuisances	$\frac{\cdot \cdot}{24}$	24	• •	• •
Sanitary Insufficient	1	1	• •	• •
accommodation Uusuitable or defective Not separate for sexes	2	2	• •	• •
Offences under the Factory and Workshop  Act:—			• •	• •
Illegal occupation of underground				
bakehouse (S. 101)  Breach of special sanitary requirements	• •	••	• •	• •
for bakehouses (SS. 97 to 100) Failure as regards lists of outworkers	• •	• •	• •	• •
Giving out work to be done in (S. 108)	• •	• •	• •	• •
premises which are Infected (C 110)	• •		• •	• •
in premises infected by scarled	• •	• •	•	• •
fever or smallpox (S. 109) Other offences	• •	• •	• •	• •
	••	••	• •	••
Total	31	31		

## OTHER MATTERS.

Class.	N	umber.
Matters notified to H.M. Inspectors of Factories:—		
Failure to affix Abstract of the Factory & Workshop Act (S.133)		
Action taken in matters referred by H.M.  Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5)  Notified by H.M.  Inspector  Reports (of action taken) sent to		3
Other		3
Underground Bakehouses (S. 101):—  Certificates granted during the year		2
Homework:—	Nun	nber of
List of Outworkers (S. 107):—	Lists.	Outworkers.
Lists received:—Twice in the year Once in the year	$-\frac{1}{2}$	48
Addresses of outworkers { forwarded to other Authorities. received from other Authorities	******	_
Inspection of Outworkers' Premises		59
Homework in unwholesome or infected premises:—	Wearing Apparel.	Other.
Notices prohibiting homework in unwholesome premises (S. 108)		
Cases of infectious disease notified in homeworkers' premises		
Orders prohibiting homework in infected premises (S. 110)		
Workshops on the Register (S. 131) at the end of the year 1912.    Rakehouses	390	

## THE HOUSING PROBLEM.

In the past the Housing Committee have devoted much time and attention to the solution of this important matter. At the close of 1910 the Local Government Board sanctioned a scheme for the erection of dwellings for the working classes. Sanction was also given for the borrowing of £31,000, being the estimated cost of acquiring a plot of land off Bolton Road, and erecting thereon 132 houses.

During the year 1912, of the proposed 132 houses to be erected 124 were completed and tenanted. The following list shows the numbers of the various types of houses erected and rents of same:—

IO	houses	known	as	type A.			Rent	4/3.
2	, ,	,,	,,	amended	type	e A.	,,	4/3.
60	,,	, ,	,,	,,	,,	В.	,,	5/4.
12	,,	,,	,,	,,	,,	C.	,,	6/2.
20	,,	,,	,,	,,	,,	D.	,,	6/6.
20	,,	,,	,,	,,	,,	E.	,, /	6/6.

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I may mention here that provision should, if possible, be made for those people who have been displaced by the closing of houses under the Housing, Town Planning, &c., Act, 1909. Several of the houses which have been closed were small houses of the backto-back type, containing two rooms only, and were let at very low rentals—as little as 1s. 6d. per week in some cases. Some of these have been made into through houses, and are now let at a higher rental. Others are so situated that it is impossible to make them fit for human habitation. In some cases the tenants have still remained in the houses at higher rentals, in others they have managed to find houses at approximately the same figure, while a few have, I understand, gone to live in furnished rooms. This last is, of course, a very undesirable state of affairs. The urgency of the matter will become more pronounced as time goes on and the work of House Inspection proceeds.

## HOUSING, TOWN PLANNING, &c., ACT, 1909.

The second list of these houses to be inspected under the Housing and Town Planning Act was submitted to the Health Committee on September 18th, 1912, and was as follows:—

15 and 17, Bold Street.

1 to 13, Joseph Street.

1, 3, and 5, Brook Street.

18, 20, and 22, Bridge Street.

2 to 78, Kay Street.

1 to 9, Lodge Street.

36 and 38, Bell Lane.

1 to 7, Bell Court.

2 to 16, Albion Court.

1, 5, 7, and 9, Albert Court.

1, 3, 5, and 2, 4, and 6, Riley Court.

A total of 86 houses.

The list of houses given in last year's report is still being proceeded with.

During the year the following houses have been dealt with under the Act:—

1, 3, 5, 7, 9, and 11, Spencer's Court.

1, 3, and 5, Britannia Yard.

55, 57, and 59, Paradise Street.

2, 4, 6, 8, 10, 12, 14, and 16, Back Eden Street.

1 and 3, Franklin Court.

1, Back Franklin Street.

49 and 51, Hornby Street.

7 and 9, Brunswick Street.

1, 2, 3, 4, and 5, Taylor's Court.

2, 4, 6, 8, 10, and 12, Back Tenters Street.

1, 3, 5, and 7, School Street.

9, 11, and 13, Nuttall Yard.

1, 3, 5, 7, 9, 11, 13, 15, 17, and 19, Howard's Yard.

2, 4, and 6, Irwell Court.

1, 3, 5, Stott's Court.

1 and 3, Foundry Court.

The Town Council issued closing orders in respect to the following houses:—

- 2 to 12, Back Tenters Street.
- 1 to 7, School Street.
- 9 to 13, Nuttall Yard.
- 1 to 19, Howard's Yard;

and with respect to the following properties preliminary notices, in lieu of notices under Section 15, were served:—

- 1, Back Franklin Street.
- 2 to 16, Back Eden Street.
- 1 to 5, Taylor's Court,

the remaining houses being in abeyance.

The position with regard to these houses at the time of writing is as follows:—

- 2 to 12, Back Tenters Street: Closed.
- I to 7, School Street: Closed.
- 9 to 13, Nuttall Yard: Closed.
- 1 to 19, Howard's Yard: Closed.
- 2 to 12, Back Eden Street: Closed voluntarily by owners.
- 16, Back Eden Street: Closed voluntarily by owners.
- 14, Back Eden Street: Structural repairs carried out.
- 1, Back Franklin Street: Structural repairs carried out.
- 1 to 5, Taylor's Court: Structural repairs carried out.

The following houses have been demolished by owners on demolition orders being served:—

5 to 9, Back Moorgate, and premises adjoining used previously as a workshop.

## HOUSES LET-IN-LODGINGS.

("Furnished Rooms.")

These houses, which are under the supervision of Inspector Haworth, have been kept in a fairly clean state. There are 44 houses now on the register, being two more than the number in the previous year. The total number of rooms in the houses is 274, of which 197 are used as "Furnished Rooms," allowing accommodation for 481 adults and 83 children. During the year it was

necessary to serve 38 preliminary notices for various nuisances and breaches of the Bye-laws, and, with the exception of a case of overcrowding, all of these had the desired effect. Speaking generally, this method of housing the poorer classes is far from satisfactory, but until some other provision is made in the shape of the erection of a cheaper type of house suitable for this class of people, either by the Corporation or by private enterprise, we shall have to endure what, in my opinion, constitutes a blot on the Sanitary Administration of the town.

## COMMON LODGING-HOUSES.

The number of Common Lodging-houses in the Borough is 24, the same number as in the previous year, all of which are subject to annual registration in accordance with Section 40 of the Bury Corporation Act, 1901 (now consolidated in the Bury Corporation Act, 1909). The houses have been kept clean, and have been limewashed twice in the year in accordance with requirements. Two of the houses have been transferred to other owners during the year.

## MEAT INSPECTION. THE PUBLIC ABATTOIRS.

The returns for the year 1912 show a decrease in the number of animals slaughtered compared with the year 1911.

	1911	1912	,		
Beasts	4110	 2470		Decrease	1640
Sheep and Lambs	2022I	 16720		Decrease	3501
Pigs	4725	 2435		Decrease	2290
Calves	930	 750		Decrease	180

From the above table it will be observed that the number of animals slaughtered (22,375) at the Public Abattoirs during the year 1912 shows a decrease of 7,611, as compared with the number slaughtered (29,986) in 1911.

Inspector Openshaw reports Tuberculosis in 69 carcases examined during the year ending December 31st, 1912, as compared with 67 carcases in 1911, 73 in 1910, 74 in 1909, 63 in 1908, and 62 in 1907. Of these carcases, 39 were of beasts and 30 were pigs, as compared with 40 beasts and 27 pigs affected with the disease in the previous year. Voluntary surrender of the affected organs or carcase (when necessary) was obtained. The quality of the meat generally maintained the standard of previous years.

## FARMS AND MILK SUPPLY.

The number of registered farms within the Borough at the end of the year was 63. Only one application for registration under the Dairies, Cowsheds, and Milkshops Order was received.

The farms within the Borough have been regularly and systematically visited by Inspector Openshaw, with the result that the majority of the farm buildings are now in a very good sanitary condition. Several important improvements have been carried out, e.g., the provision of new shippons, &c., and other sanitary improvements, such as ventilation, drainage, lighting, &c., have been carried out.

MILK.—The quality of milk supplied in the Borough, as judged by the samples submitted for analysis, has been fairly good. Sixty-one samples were taken by the Inspector (Mr. Cass) and submitted to the Borough Analyst, and with the exception of eleven samples were pronounced genuine.

Number of samples of milk taken in the past ten years:-

Year			Sample	s Ad	ultera	ted P	ercentage dulterated
1912		 	61		ΙΙ		18.03
1911		 	57		2		3.51
1910		 	52		Ο		
1909	• • •	 • • •	60		4		6.6
					2	• • • • • • •	3.9
1907				• • • • • • • • • • • • • • • • • • • •	0	• • • • • • •	
1906		 	73		7		9.6
1905		 • • •	76		9		11.8
1904		 	51		2		3.9
1903	• • •	 	40	• • • • • • • • •	3		7.5

## FOOD AND DRUGS.

The number of samples submitted to the Borough Analyst during the year was 239, an increase of 44 from the number in 1911. The number of samples taken in 1910 was 195, and in 1909 148.

With the exception of eleven samples of milk, one sample of skimmed milk, two samples of butter, two samples of spirits, and four samples of sweet spirits of nitre, all the samples submitted were genuine. The percentage of adulteration is equal to 8.36 per cent. of the total samples submitted. In the preceding ten years the percentage of adulteration was as follows:—

Year	Nu	nber of S	amples	Percentage o	of Adulteration
1911		.195		• • • • • • • • • • • • • • • • • • • •	3.59
1910		153		• • • • • • • • • • • • • • • • • • • •	0.65
1909		148	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	4.05
1908		110	••••••		1.82
1907		I 2 I	• • • • • • • • • • • • •		
1906		142		• • • • • • • • • • • • • • • • • • • •	7.0
1905		130	• • • • • • • • • • • • •		10.6
19 <b>0</b> 4	•••••	113	• • • • • • • • • • • • • • • • • • • •		3.54
1903	,	97	• • • • • • • • • • • • • • • • • • • •		11.49
1902	••••••••	78			3.8

#### SMOKE OBSERVATIONS.

The number of observations taken was 104, which is a decrease of four observations, as compared with the previous year. All these were of 60 minutes' duration. The time limit of five minutes' "black" smoke per hour was exceeded in 17 instances by ten firms.

Legal Proceedings.—Legal notices were served upon 17 firms, and five prosecutions were taken for non-abatement of the nuisance, the result being that magistrates' orders for abatement were made and the fines imposed upon the firms were as follows:—Three firms fined 20s. and costs each, one firm fined 40s. and costs, one firm fined £5 and costs.

#### MIDWIVES' ACT.

The number of midwives on the register at the end of the year was 28, an increase of three on the total at the end of the year 1911. Four new midwives were registered during the year, and one gave up practising.

There is nothing to report regarding the conduct of the midwives, but some still find difficulty in the use of the clinical thermometer, and some being unable to write have to rely upon others to enter up their registers; these latter, fortunately few in number, are untrained and uneducated. The standard of midwifery work now carried out in Bury shows a higher state of efficiency, due, doubtless, to the supervision carried out under the provisions of the Midwives' Act of 1902.

During the year 100 notices were received from midwives requesting the help of medical practitioners.

Still Births.—Eleven still births were notified by medical men, 48 by midwives, and one by the parent during 1912, an increase of 28 on the number notified during 1911.

Legislation as to the procedure to be adopted in the interment of still-born babies is desirable, in order to minimise the possibility of the occurrence of crime.

TABLE 1.

Table showing Number of Deaths and Rates of the Principal Infectious Diseases for the past Ten Years.

	61	1903	61	1904	1905	25	9061	91	1907	27	1908	80	1909	60	0161	01	1161	II	61	1912
	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per rooo	No. of Deaths	Rate per 1000												
Smallpox	9	0.10	6	0.03	I	10.0	0	. 0	0	. 0	0	0	0	0	0	0	0	0	0	0
Measles	25	0.43	27	0.46	9	01.0	51	28.0	II	81.0	15	0.52	17	0.28	∞	0.13	56	0.44	8	0.13
Whooping C.	7	0.12	42	0.71	Т	10.0	9	0.10	27	0.46	9	0.10	13	0.55	0	0	12	0.50	22	0.37
Scarlet F'v'r	∞	0.13	OI	91.0	8	0.02	61	0.03	H	10.0	3	0.02	4	90.0	19	0.32	10	21.0	4	20.0
Diphtheria	25	0.43	1~	0.12	w	80.0	9	0.10	10	21.0	IO	91.0	S	80.0	$\infty$	0.13	rV.	60.0	П	0.05
Enteric F	4	0.02		0.12	II	0.18	ın	80.0	w	80.0	4	20.0	4	20.0	m	0.05	0	0	0	0.03
Puerperal F.	I	10.0	m	0.02	H	10.0	4	20.0	9	01.0	2	0.03	2	0.03	71	0.03	m	0.02	I	0.03
Erysipelas		10.0	0	0	B	0.02	n	0.02	Н	10.0	23	0.03	0	0	Н	10.0	0	0	71	0.03
Diarrhœa	49	0.84	45	22.0	44	0.75	46	0.78	14	0.34	30	0.20	15	0.25	25	0.43	65	11.1	14	0.24
Influenza	w	80.0	II	0.18	10	91.0	7	0.12	01	21.0	13	0.52	OI	21.0		0.12	$\infty$	0.14	4	20.0

## TABLE II.

TABLE SHOWING THE COMPARATIVE NUMBERS OF SANITARY Conveniences in the Borough in the Years

1902, 1911, AND 1912.

Number of privies	3585 479 4836	 5 I 5 44 I 4	 545 <sup>8</sup> 795 1909
Number of waste-water closets	2707	 2713	 1509
	11607	 11310	 9731
Number of inhabited houses	14100	 13721	 12692

#### TABLE III.

LIST OF REGISTERED MIDWIVES, corrected to February 1st,

\*Collinge, Mrs. Jane, 74, Chesham Road.

\*Greenhalgh, Mrs. Bertha, 34, Old Doctor's Farm, Tottington.

\*Carrington, Mrs. Mary Jane, 4, Richard Burch Street.

\*Pennington, Miss Sarah, 60, Walmersley Road.

\*Dodd, Miss Emily, 130, Walmersley Road.

\*Ingham, Mrs. Jane Parkinson, 94, Rochdale Road.

\*Howarth, Miss May, 35, Irwell Street.

\*Crompton, Miss Bertha, 145, Tottington Road.

- \*Hacking, Mrs. Miriam, 116, Booth Lane, Tottington. \*Haslam, Mrs. Elizabeth, 123, Bury New Road, Bolton.
- \*Isherwood, Miss Florence, 9, Shepherd Street.
- \*Millwood, Mrs. Harriet S., 322, Hornby Street.

\*Braithwaite, Miss Mary Ann, Summerseat.

\*Chaffer, Mrs. Emma, 7, Nelson Street.

\*Graham, Miss Hannah A., Four Lane Ends, Whitefield.

†James, Mrs. Annie, 251, Bolton Road.

Pickup, Mrs. Mary Ann, 1, Chesham Road.

Arstall, Mrs. Mary Ann, Breightmet Fold, Bolton. Taylor, Mrs. Ellen, 35, Union Square.

Nabb, Mrs. Esther, I, Regent Street.

Morrison, Mrs. Louisa, 52, Manchester Old Road.

Cotterill, Mrs. Sophia, 108, Wash Lane.

Whiley, Mrs. Ellen, 20, School Street.

Rostron, Mrs. Harriet, 48, East Street.

Isherwood, Mrs. Elizabeth, 9, Shepherd Street. Fitzpatrick, Mrs. Mary, 72, Whalley Road, Ramsbottom.

Cooke, Mrs. Louisa, 46, Holland Street, Radcliffe. Berry, Mrs. Elizabeth A., 7, Statter Street, Hollins.

\* Trained and certificated by examination.

<sup>†</sup> Has received some training, but has passed no examination.

#### TABLE IV.

LIST OF REGISTERED KEEPERS OF COMMON LODGING-HOUSES,

Griffin, Lucy, 9, Parkhills Street, and 20, Earl Street.

Wright, John, 38, King Street.

Dodd, Lily, 16, Union Square.

Slattery, Elizabeth, 52, Union Square.

Taylor, Thomas G., 25, King Street.

Johnstone, Robert, 24, Clerke Street.

Tattersall, William, 26 and 28, Clerke Street.

Whitehouse, Samuel and John, 12 and 14, Earl Street, and 56, Union Square.

Lees, Heaton, 5, 7, 9, and 11, Clerke Street.

Hindle, James, 4, 6, 8, and 10, Rochdale Road.

Hurine, William H., 18, Union Street.

Nuttall Arthur, 41 and 43, Union Square.

Drinkwater, William, 12, John Street.

## TABLE V.

## DEATHS FROM PHTHISIS DURING THE YEAR 1912.

				-				
Ward.		Address.				Sex.	. Age	e. Occupation.
Church		29, Edward Street		• •		М	40	Carter
Church		Caravan, Fairground			• •	M	35	Hawker
Redvales		138, Brierley Street				F	10 63	Daughter
Redvales Church		2, Thomas Street 53, Trinity Street	• •	• •	* *	$_{ m M}^{ m M}$	61	Plumber Labourer
Moorside		4, Boundary Street	• •			F	33	Wife
East		40, Queen Street				$\mathbf{F}$	28	Wife
Elton		1, Bank Place		• •		$\mathbf{M}$	27	Groom
Moorside Moorside	• •	272, Hornby Street	• •	• •	• •	F	50 47	Wife
Church	• •	74, Hornby Street 44, George Street	• •	• •	• •	$_{ m M}^{ m M}$	45	Labourer Metal broker
Church	• •	60, Frederick Street		• •		F	38	Wife
Elton		65, Lord Street			• •	$\mathbf{F}$	22	Spinster
Elton		19, Charles Street				$\mathbf{M}$	69	Cotton Spinner
Moorside	٠.	1, Nuttall Court	• •	• •		F	22	Felt Hat Trimmer
Redvales Elton	• •	Laburnum House 6, Brooksmouth	• •	• •	• •	$_{ m F}^{ m M}$	34 47	Cotton Mill Manager Wife
Elton	• •	13, Higher Woodhill	• •	• •		F	30	Wife
East		51, Wash Lane		• •		$ar{ ext{F}}$	22	Cotton Weaver
Moorside		9, Joseph Street				$\mathbf{F}_{-}$	23	Cotton Weaver
East	• •	Back Deal Street	• •	• •		$\mathbf{M}$	53	Rag Dealer
East East	• •	24, Greenhalgh Row 12, Bridge Street	• •	• •	• •	$_{ m M}^{ m F}$	7 25	Daughter Cutter in leather works
Church	• •	82, King Street	• •	• •	• •	M	29	Grocer Grocer
Elton		112, Walshaw Road	• •	• •		$\dot{M}$	44	Coal Agent
Church		Oak Street				M	37	Labourer
Elton	• •	211, Tottington Road		• •		M	44	Cotton Mill Manager
Church Church		24, Clerke Street	• •		• •	M	48	Cotton Weaver
East	• •	7, Fielding Court 481, Rochdale Old Ro	ad.	• •	• •	$_{ m F}^{ m M}$	21 26	Woollen Worker Wife
East		Mossfield			• •	$\dot{\mathbf{F}}$	33	Widow
Elton		Webb Street			• •	$\mathbf{M}$	26	Labourer
Church		William Street	• •	• •		M	48	Labourer
Elton Moorside	• •	3, Connaught Street Walmersley Road	• •	• •		M	53	Labourer
Elton	• •	57, Belbeck Street	• •	• •	• •	$_{ m F}^{ m M}$	18 31	Bleachworks Wife
East	• • •	295a, Rochdale Road	• •	• •		$\dot{\mathbf{M}}$	62	Retired Victualler
East		St. Paul's Street		• •		$\mathbf{F}$	46	Widow
East		4, Back Kay Street				F	16	Paper Sorter
Redvales Elten	• •	Shepherd Street Dun Horse Hotel	• •	• •	• •	M	28	Whitesmith
Elton	• •	129, Walshaw Road	• •	• •	• •	$_{ m M}^{ m F}$	34 20	Wife Cotton Piecer
Elton	• •	2, Kitchener Street	• •		• •	M	17	Grocer
East		5, Rectory Lane				F	41	Wife
East		5, Bond Street				$\mathbf{M}$	46	Insurance Agent
Elton Elton		Merton Street 24, Higher Woodhill	• •			F	14	Daughter
Elton	• •	Charles Street	• •	• •	• •	$_{ m F}^{ m M}$	19 43	Labourer
Church	• •	56, Union Square		• •		M	29	Spinster Labourer
Redvales		Redvales Farm			• •	M	37	Farmer
Redvales		59, Alfred Street				$\mathbf{M}$	42	Clerk
East Church	• •	Bury Union Workhou Union Square		• •	• •	F	58	Widow
Moorside	• •	119, Paradise Street		• •	* *	$_{ m M}^{ m M}$	52 58	Miller
Church	• • •	7, Back Garden Street	t .	• •		M	66	Labourer
Elton		262, Tottington Road				M	50	Shoemaker
Church		Cross Street		• •		$\mathbf{M}$	47	Coal Heaver
Elton Church	• •	39, David Street	• •			$\mathbf{M}$	69	Iron Fitter
Church	• •	4, Milton Court 39, Clerke Street	• •		• •	F	37	Spinster
Redvales	• •	5, Palace Street		• •	• •	$_{ m M}^{ m M}$	48 26	Upholsterer Tram Conductor
East		13, Lucas Street			• •	M		Currier
Moorside		15, Moorgate				M	62	Stonemason
East Moorside		85, Chesham Crescent				$\mathbf{F}$	41	Wife
Elton	• •	51, Regent Street 48, Woodhill Street	* •	• •	• •	$\mathbf{M}$		Plumber
Elton	• •	61, Wood Street	• •	• •	• •	F		Wife
Elton	• •	37, Newbold Street	• •	• •	• •	$_{ m M}^{ m F}$	64 18	Widow Labourer
East		7, Lima Street		• •		F	_	m'ths
Moorside		4, Linton Street				F		Cotton Weaver
Church Redvales	• •	42, Cecil Street	• •			$\mathbf{M}$	45	Cotton Twister
Redvales	• •	71, Hurst Street 21, Benson Street	• •	• •	• •	F		Wife
East	• •	1, Rochdale Old Road	• •		• •	M		Mechanic
Moorside	• •	294, Hornby Street	• •	• •				Labourer Wife
East		Union Workhouse						Labourer
Church	• •	Union Square						Labourer

## TABLE VI.

## CHRONOLOGICAL ORDER OF

## DEATHS FROM CANCER DURING THE YEAR 1912.

WARD.	ADDRESS.	S	EX.	AGE	DESCRIPTION.	ORGAN AFFECTED.		OCCUPATION.
Moorside	93, Hornby Street		$\mathbf{M}$	63	Carcinoma			Navvy
Moorside	348, Walmersley Road		$\mathbf{F}$	69	Cancer	Liver		Spinster
Redvales	Mason Street		$\mathbf{F}$	63	Cancer	$\operatorname{Breast}$		Ŵidow
East	2, Huntley Fold		$\mathbf{F}$	60	Carcinoma	Recti		Widow
Elton	102, Bolton Road		$\mathbf{F}$	64	Cancer	Stomach		Spinster
Møorside.	Chesham Green		$\mathbf{F}$	71	Cancer .	Larynx		Ŵife
Redvales	37, Heywood Street		$\mathbf{F}$	51	Cancer	Liver		Wife
Redvales	22, Hurst Street		$\mathbf{F}$	65	Carcinoma .	Intestine		Wife
Redvales	15, Mason Street		$\mathbf{F}$	74	Cancer	T.		N • 4
Redvales	42, Spring Street		$\mathbf{F}$	51	Cancer	~		Widow
East	161, Rochdale Road		$\mathbf{F}$	38	Carcinoma	Uteri	••	Wife
Moorside	156. Hornby Street		$\mathbf{M}$	56	Cancer	Liver		Stoker
Moorside	156, Hornby Street 54, Badger Street		M	73	Epithelioma		• •	To
East	9, Sackville Street	••	$\overline{\mathbf{F}}$	56	Cancer	Liver	• •	*****
Redvales	2, Maudsley Street	• •	$\bar{\mathbf{F}}$	60	Carcinoma	Breast	• •	Spinster
Elton	Oddfellows' Arms		$\bar{\mathbf{F}}$	57	Cancer	Liver		Widow
East	York Street	•	$\overline{\mathbf{M}}$	61	Cancer	Throat		Cotton Spinner
Elton	15, Bolholt Terrace	• •	M	50	Carcinoma	Recti	• •	α 1 -
Redvales	76, Brierley Street	• •	F	66	~	Pharynx	• •	Wife
Moorside	26, Mosley Street		F	46	~	Liver	• •	Widow
7771	9, Hayward Street	• •	M	72	0	Intestine	• •	T 1
Elton	40 Dand Street	• •	F	49	~ .		• •	
East	42, Bond Street	• •	$\mathbf{F}$	70	~	Stomach Breast	•	Wife
Elton		• •	M	59	0:		• •	Widow
Moorside			F	29		Pharynx	• •	Labourer
Church	54, South Garden Street			56	Carcinoma	Uteri	• •	Wife
Moorside	424, Limefield	• •	M	67	Cancer	Throat	• •	
Church	4, King Street	• •	M		Carcinoma	Tongue	• •	
Redvales	79, Gigg Lane	• •	F	67	Carcinoma	Uteri	• •	Wife
Moorside	13, Todd Street	• •	F	35	Cancer	Uterus		Wife
Church	Union Square	• •	M	65	Carcinoma	Rectum	• •	
Church	Clerke Street	٠.	M	66	Carcinoma	Bladder	• •	
East	233, Wash Lane	• •	$\mathbf{F}$	53	Cancer	Uterus		
Elton $\dots$	226, Tottington Road		$\mathbf{M}$	59	Carcinoma	Pancreas		N't Watchman
Redvales	8, Alfred Street	٠.	$\mathbf{F}_{-}$	58	Carcinoma	Colon		Wife
Elton	86, Bolton Road		$\mathbf{M}$	56	Cancer			Scutcher
Moorside	340, Walmersley Road		$\mathbf{M}$	63	Carcimona	Stomach		Labourer
Redvales	77, Devon Street		$\mathbf{F}$	51	Carcimona			Vanman
Moorside	Walmersley Vicarage		$\mathbf{M}$	73	Carcinoma			Clergyman
Redvales	48, Devon Street		$\mathbf{F}$	59	Carcinoma			Wife
Redvales	28, Brierley Street		$\mathbf{F}$	55	Cancer .	Stomach		Servant
Moorside	13, Chester Street	٠.	$\mathbf{F}$	88	Epithelioma			Millhand
East .	Union Workhouse		$\mathbf{F}$	52	Cancer	- ·		Widow

TABLE VII.

THE BURY AND DISTRICT JOINT WATER BOARD.

RAINFALL AT WORKSHOP YARD, PARSONS LANE.

January         2 42         1 56         6 42         6 46         6 58         6 76         6 78         6 78         6 78         6 78         6 78         6 78         6 78         6 78         6 78         6 78         6 78         6 78         6 78         6 78         6 78         6 78         7 78		1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	January	2.42	1.37	2.22	5.06	3.29	4.10	1.55	3.16	3.65	1.82	2.09	3.48	5.88	6.72	3.34	3.45	3.29	3.56	2.13	5.39	1	4.26	2.86	5.65	1.59	4.87
h 2.27 3.11 3.02 4.19 1.87 1.00 1.00 4.29 3.70 5.37 4.14 2.14 2.14 2.15 3.00 6.54 2.25 2.45 2.75 2.51 3.49 3.51 3.52 2.51 3.49 3.51 3.52 2.51 3.49 3.51 3.52 3.40 3.51 3.52 3.40 3.51 3.52 3.40 3.51 3.40 3.51 3.52 3.40 3.51 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.40 3.51 3.51 3.51 3.51 3.51 3.51 3.51 3.51	•	0.78	1.49	2.65	0.45	0.48	2.81	5.64	92.9	0.20	2.19	2.67	3.84	1.66	3.80	1.84	1.94	3.87	3.86	2.43	3.71	2.74	3.87	2.67	4.27	20.9	1.71
1.   1.   1.   1.   1.   1.   2.   2.	March	2.27	3.11	3.05	4.19	1.87	1.00	1.00	4.29	3.70	5.37	4.14	2.14	2.73	89.0	2.28	2.48	4.72	2.57	3.44	3.51	3.82	3.37	3.39	0.88	2.11	6.46
	•	1.31	1.82	2.01	1.19	2.58	1.31	0.65	1.46	1.76	1.61	2.91	2.15	2.90	2.54	2.57	2.37	2.21	2.64	3.20	2.27	1.85	2.50	2.63	2.71	2.93	1.00
	•	2.05	0.85	3.11	2.39	26.2	4 30	<b>2</b> .36	3.45	0.83	0.41	2.07	4.19	3.18	1.79	0.88	3.00	4.50	2.56	0.52	3.60	4.38	3.16	2.35	3.30	2.46	3.13
st	•	1.23	2.81	1.34	3.75	2.56	3.26	2.32	3.29	2.06	2.54	4.74	2.93	1.69	3.57	1.95	1.28	1.66	1.29	2.23	1.97	7.62	2.02	5.69	3.31	3.04	5.95
5.14         4.45         7.21         5.04         5.05         4.55         4.55         4.55         4.75 <t< th=""><td>•</td><td>1.72</td><td>7.52</td><td>4.01</td><td>2.73</td><td>3.87</td><td>3.42</td><td>2.95</td><td>3.85</td><td>5.33</td><td>2.64</td><td>1.76</td><td>0.26</td><td>2.07</td><td>2.73</td><td>1.56</td><td>2.88</td><td>3.81</td><td>1.86</td><td>2.36</td><td>1.96</td><td>2.81</td><td>20-9</td><td>6.83</td><td>4.14</td><td>0.22</td><td>5.34</td></t<>	•	1.72	7.52	4.01	2.73	3.87	3.42	2.95	3.85	5.33	2.64	1.76	0.26	2.07	2.73	1.56	2.88	3.81	1.86	2.36	1.96	2.81	20-9	6.83	4.14	0.22	5.34
5.14         1.62         3.83         2.07         4.53         4.52         0.62         1.81         9.43         4.53         1.57         1.57         1.70         1.80         5.42         1.45         2.70         1.57         1.20         3.93            2.22         2.36         3.06         3.69         4.61         4.40         4.75         4.43         4.47         4.46         4.70         4.47         4.40         4.70         4.40         4.70         4.40         4.70         4.40         4.70         4.40         4.70         4.40         4.70         4.40         4.70         4.40         4.70         4.40         4.70         4.40         4.70         4.40         4	•	1.39	4.65	14.9	4.44	7.21	2.01	3.39	2.03	4:54	2.85	3.97	7.50	1.42	92.9	2.49	3.16	5.36	4.85	5.10	4.75	4.46	3.45	3.24	6.05	2.47	7.58
2.22         2.36         3.64         3.64         4.15         4.40         4.07         4.39         2.30         4.67         3.64         4.67         3.19         4.67         3.19         6.19         2.82         4.67         9.24         2.35         3.64         4.69         4.70         4.70         4.75         4.70         4.67         3.14         3.75         6.19         2.82         4.67         3.49         3.75         4.27         4.67         3.75         4.67         3.75         4.67         3.75         4.67         3.75         4.67         3.75         6.01         2.35         3.96         4.20         4.75         3.75         3.75         3.75         3.75         3.75         3.75         3.75         3.75         3.75         3.75         3.75         3.75         3.76         3.75	• •	5.14	1.62	3.83	2.07	2.99	4.63	4.52	0.62	1.81	9.43	4.30	1.37	61.9	1.53	1.70	1.80	5.45	1.45	2.70	1.57	1.20	3.93	2.65	0.21	4.03	1.76
1.79         5.48         2.16         6.77         4.50         3.64         3.74         1.49         5.14         3.75         1.48         3.77         6.01         2.39         3.79         4.49         3.79         4.49         3.79         4.55         3.71         4.55         3.71         4.52         3.71         4.52         4.53         4.75         4.55 <th< th=""><td></td><td>2.52</td><td>2.36</td><td>3.06</td><td>3.69</td><td>5.16</td><td>5.18</td><td>4.15</td><td>4.40</td><td>4.07</td><td>4.39</td><td>2.30</td><td>4.37</td><td>3.19</td><td>6.19</td><td>2.82</td><td>4.67</td><td>9.54</td><td>2.38</td><td>3.54</td><td>2.08</td><td>4.09</td><td>1.83</td><td>2.68</td><td>3.58</td><td>3.74</td><td>5.50</td></th<>		2.52	2.36	3.06	3.69	5.16	5.18	4.15	4.40	4.07	4.39	2.30	4.37	3.19	6.19	2.82	4.67	9.54	2.38	3.54	2.08	4.09	1.83	2.68	3.58	3.74	5.50
3.30         2.93         3.85         0.16         7.52         3.15         4.27         4.30         5.97         5.93         4.55         4.44         4.44         4.44         4.44 <th< th=""><td>:</td><td>1.79</td><td>2.48</td><td>2.16</td><td>6.77</td><td>4.30</td><td>3.64</td><td>3.68</td><td>2.93</td><td>3.74</td><td>1.49</td><td>5.14</td><td>3.26</td><td>1.48</td><td>3.73</td><td>6.01</td><td>2.39</td><td>3.90</td><td>4.20</td><td>4.49</td><td>3.59</td><td>3.56</td><td>3.03</td><td>1.52</td><td>5.43</td><td>4.50</td><td>2.22</td></th<>	:	1.79	2.48	2.16	6.77	4.30	3.64	3.68	2.93	3.74	1.49	5.14	3.26	1.48	3.73	6.01	2.39	3.90	4.20	4.49	3.59	3.56	3.03	1.52	5.43	4.50	2.22
25.62         36.94         44.75         41.81         36.48         43.36         37.03         40.71         41.52         40.12         36.60         45.54         30.62         32.90         50.04         34.30         34.13         44.41         42.99         39.56		3.30	2.93	3.85	0.16	7.52	3.15	4.27	4.30	5.04	2.97	5.43	4.33	3.21	2.50	3.18	3.48	3.06	3.08	69.0	5.01	4-24	3.12	8.01	4.33	7.25	5.34
												<del>'</del>	<del></del>	<del></del>	<del>-</del>	<del></del>			<del></del>	<del></del>	<del>-</del>			45.52	43.86	39.36	52.21

## ANNUAL REPORT OF THE BOROUGH ANALYST.

## ANALYTICAL LABORATORIES,

54, Arcade Chambers, St. Mary's Gate,
Manchester,

January 20th, 1913.

To the Chairman and Members of the Health Committee of the Corporation of Bury.

## Gentlemen,

In accordance with Section 19 of the Sale of Food and Drugs Acts, 1875-1907, I herewith beg to report upon the various samples examined by me for the year ending December 31st, 1912.

During the 12 months your Inspector, Mr. H. C. Cass, has submitted to me 239 samples, consisting of the following articles:

Butter	62
Milk	61
Milk (skimmed)	3
Milk (Condensed)	10
Cream (preserved)	6
Cheese	3
Lard	6
Coffee	9
Pepper	7
Mustard	2
Flour	I
Rice	I
Tea	4
Sago	I
Margarine	I
Oatmeal	2
Arrowroot	1
Cocoa	2
Cornflour	I
Tapioca	I
Honey	I
Spirits	5
Beer and Stout	3
Vinegar	3
Tinned and preserved foods	13
Drugs	27
Barm	I
Baking Powder	2
_	

Each of these samples was carefully examined and 20 were found to be adulterated, viz.: 10 samples of milk were deficient in milk fats, and one contained an excess of water. One sample of skimmed milk was deficient in non-fatty solids. Two samples of butter (one of which was informally taken) were found to consist wholly of margarine. Two samples of spirits were found to be slightly under the required standard, and four samples of sweet spirits of nitre were deficient in ethyl nitrite.

The adulteration was equal to 8.36 per cent.

In the case of one sample of milk, containing an excess of added water, and of the sample of butter reported as consisting wholly of margarine, prosecutions are pending, and the vendors, I understand, were cautioned in respect to the other samples reported upon adversely.

Out of the 239 samples received 169 were "informal" or test samples.

The whole of the samples were specially examined for preservatives, but no trace was found.

The samples of preserved cream contained boric acid, but this fact was duly notified in accordance with the requirements of the Public Health (Milk and Cream) Regulations, 1912.

The samples of preserved or tinned foods consisted of:—

4 samples of preserved fruit.

4 ,, salmon.

2 ,, tongue.

ı ,,. golden syrup.

ı ,, sardines.

ı ,, peas.

All these were found to be sound and wholesome, and, with the exception of a small quantity of copper in the preserved peas—the presence of which was duly notified upon the label—no metallic substances injurious to health were found.

The 27 samples of drugs examined were as follows:-

4 samples of ground ginger.

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6,, sweet spirits of nitre.
```

- ı ,, oil of eucalyptus.
- ı ,, vaseline.
- i ,, paregoric.
- 2,, ammoniated tincture of quinine.
- I ,, tartaric acid.
- zinc ointment.
- i ,, mercury ointment.
- i ,, bismuth lozenge.
- i ., tincture of rhubarb.
- almond oil.
- i ,, chlorate of potash.
- ı ,, glycerine.
- i ,, citric acid.
- ı ,, aloes.
- ı ,, linseed.
- iodine.

With the exception of the four samples of sweet spirits of nitre, containing a deficiency of ethyl nitrite, previously referred to, these samples were found to be pure and in full conformity with the requirements of the British Pharmacopæia.

## I remain,

Yours faithfully,

THOS. J. HUTCHINSON, F.I.C.,

Borough Analyst, County Borough of Bury

## INSPECTION OF CANAL BOATS.

PUBLIC HEALTH DEPARTMENT,

PARSONS LANE, BURY,

January 14th, 1913.

To Dr. G. Granville Buckley, Medical Officer of Health.

Dear Sir,

CANAL BOAT ACTS, 1877 AND 1884.

ANNUAL REPORT FOR 1912.

In accordance with the above Acts, I have to report that no boats registered thereunder have visited the wharf at Bury Bridge.

I am,

Yours faithfully,

SAMUEL KAY,

Canal Boat Inspector.

## REPORT OF NURSE HAMPTON.

## PUBLIC HEALTH DEPARTMENT,

PARSONS LANE, BURY.

To the Chairman and Members of the Health Committee.

Gentlemen,

I beg to present to you the following report, being a summary of the work carried out during the year 1912:—

#### SUMMARY OF VISITS.

1199 visits to houses where births have been registered.

646 re-visits ,, ,, ,, ,,

- 137 visits to houses in which deaths in infants under one year of age have occurred.
  - 96 visits to workshops where women are employed.
  - 59 visits to homes of outworkers.
- 406 visits to homes in which cases of suspected Measles, Whooping Cough, Ringworm, &c., existed.
- 196 notifications of Phthisis visited.
- 518 re-visits to cases of Phthisis.
- 87 visits to houses for disinfection after Phthisis and Puerperal Fever.
  - 6 Puerperal Fever cases visited.
- 20 visits under the Shop Hours Act.
- 25 visits under the Shop Assistants (Seats) Act.
- 146 re-visits to babies during the Summer Diarrhæa season.
- 119 visits to Midwives.
  - visits to uncertified women, practising as Midwives, who have previously been cautioned.
  - 6 visits to investigate complaints of dirty homes and surroundings.
  - 2 notified cases of Ophthalmia Neonatorum visited.
  - 2 notified cases of Poliomyelitis visited.
  - I visit to overcrowded room.

BIRTHS.—During the year I have been able to obtain information in 1,199, or 97.48 per cent., of the total (1,230) births registered as regards the feeding, &c., of the infants. Advice has also been given where necessary with regard to the feeding and general care of the children.

FEEDING.—740, or 61.72 per cent., of the infants were being fed naturally; 252, or 21.02 per cent., were fed by bottle; 210, or 17.51 per cent., being fed partly by breast and partly by bottle. 13, or 1.08 per cent., were fed by spoon, and 15 died almost immediately after birth.

From the above it will be seen that the percentage (61.72) of the breast-fed children shows a slight increase as compared with the previous year (58.06). This is a very satisfactory feature. It is pleasing to record that the number of children fed by bottle is gradually decreasing, but at the same time it is disheartening to find so many of the long-tubed bottles still in use.

Of the 1,230 births registered, 83 died before the end of the year. Of these 25, or 30.12 per cent., occurred in breast-fed children; 25, or 30.12 per cent., occurred in bottle-fed children; 3, or 3.61 per cent., occurred in children partly fed by breast and partly by bottle; 10, or 12.05 per cent., occurred in children fed by spoon; 20, or 24.10 per cent., died within a few days of birth.

Deaths.—138 deaths have been recorded of children under one year of age. The following is an analysis of the nature of feeding:—

66, or 47.83 per cent., were bottle-fed.

31, or 22.46 per cent., were fed naturally.

8, or 5.80 per cent., were partly breast and partly bottle fed.

13, or 9.42 per cent., were spoon-fed.

20, or 14.49 per cent., died almost immediately after birth.

Of the above deaths (138), 11 were attributed to Diarrhæa, and from the information obtained it was found that eight of these occurred in bottle-fed children, and three in breast-fed children.

Summer Diarrhæa.—In the early part of the year special note was made of the bottle-fed, delicate, and seemingly neglected babies, and during the Diarrhæa season I re-visited all such cases, gave the necessary advice as to the cleanliness of homes, bottles, &c., and practical instruction in the preparation of infants' foods. Particulars were taken after the occurrence of deaths from this disease.

## DIARRHŒA DEATHS.

Year.	No. o	of Death	S.		Bottle-fed.					Breast-fe	d.	
1905	• • • • • • • • • • • • • • • • • • • •	33	27,	or	81.82 pe	er cent.		6,	or	18.18	per	cent.
1906		43	35,	or	81.40 pe	er cent.	,	8,	or	18.60	per	cent.
1907		9	. 6,	or	66.60 p	er cent.		3,	or	33.40	per	cent.
1908		20	. 13,	or	65.00 pe	er cent.		5,	or	35.00	per	cent.
1909	• • • • • • • • • • • • • • • • • • • •	I2	. п,	or	91.67 pc	er cent.		Ι,	or	8.33	per	cent.
1910	• • • • • • • • • • • • • • • • • • • •	19	. 17,	or	89.47 p	er cent.		2,	or	10.53	per	cent.
1911		45	45,	or	100.00	per cent.		0,	or	0.00	per	cent.
1912		II	. 8,	or	72.72 p	er cent.		3,	or	27.28	per	cent.

MIDWIVES.—As regards Midwives practising in the Borough, speaking generally, they have complied with the rules and regulations according to the Midwives' Act.

Puerperal Fever.—I have investigated in every case the Midwife's mode of procedure for some time before and after any case of Puerperal Fever which may have occurred in her practice, and have supervised the disinfection of bag and appliances, also personal cleanliness. In each case the Midwife was interviewed by the Medical Officer of Health.

Workshops.—During the year I have paid 96 visits to workshops where women are employed, and it is pleasing to record that the conditions under which the work is carried on are very satisfactory as regards cleanliness, light, ventilation, and provision of suitable sanitary conveniences. In cases where limewashing has been advised, such work has been carried out at the earliest convenience.

SHOP ASSISTANTS' (SEATS) ACT.—25 visits have been paid to shops, and in each case it was found that the sections contained in the above Act were being complied with.

Outworkers.—Two lists of outworkers were received during the year, containing 48 names and addresses, to which I have paid 59 visits. In the majority of cases I found the respective rooms in which the work was being carried on in a very satisfactory condition. In a few instances, however, I have recommended that the workroom be cleansed and limewashed, and in each case the necessary work has been carried out.

OVERCROWDING.—During the year, in the course of my visits, the following case has been found in which overcrowding occurred:

This was a furnished room occupied by tenants whose former house had been closed under the Housing, Town Planning, &c., Act, 1909. The room was occupied by mother aged 48 years, father aged 50 years, two daughters aged 23 and 19 years respectively, and three sons aged 21, 15, and 11 years respectively. This family slept in the room, which contained only one bed. The room was in a fairly clean state, but was badly ventilated. On visiting I advised the people to get another room, which they did in the course of a day or two.

Visits to investigate complaints of dirty homes and surroundings were made. In many instances the homes were in a dirty condition. These houses were afterwards kept under observation, with a result that a decided improvement soon became manifest.

In cases where the children were found to be verminous, it was reported to the Inspectors of the Society for the Prevention of Cruelty to Children.

During the course of my visits to Houses let in Lodgings for the purpose of enquiring as to the feeding of infants, &c., I found these rooms, speaking generally, to be in a fairly clean condition.

## PHTHISIS (NOTIFICATION).

During the year 196 notifications of Phthisis have been received, of which 46 were under the Public Health Regulations, 1908, 11 under the Tuberculosis in Hospital Regulations, 1911, and 139 under the Public Health Regulations, 1911.

On visiting the cases notified much valuable information has been obtained, as will be seen from the undermentioned list:—

- 1. Female. Aged 56. Husband's side of family suffering from Phthisis.
- 2. Female. ,, 13. Sister Phthisical. Phthisis on the paternal side.
- 3. Female. ,, 34. Father and mother died of Phthisis.
- 4. Male. ,, 20. 16 relatives on maternal side and three relatives on paternal side have died of Phthisis.
- 5. Female. ,, 7. On the paternal side of family seven have died of Phthisis.
- 6. Female. ,, 4. Grandmother and two aunts have died of Phthisis.
- 7. Male. ,, 21. Mother and three sisters died of Phthisis.
- 8. Female. ,, 26. Mother and mother-in-law died of Phthisis.
- 9. Male. ,, 57. All maternal side have died of Phthisis.
- 10. Female. ,, 16. Mother and sister suffering from Phthisis. Other members of family not strong.
- 11. Female. ,, 18. Maternal side have all died of Phthisis.
- Male. ,, 47. Mother and wife died of Phthisis. Father and sister suffering from Phthisis at present time.
- 13. Female. ,, 32. Sister and brother died of Phthisis.
- 14. Male. ,, 37. Wife died of Phthisis two years ago.
- 15. Female. ,, 40. Brother and sister suffering from Phthisis.
- 16. Male. ,, 8. Four on the maternal side died of Phthisis.
- 17. Female. ,, 31. Three sisters and one brother died of Phthisis. Also Phthisis on husband's side of family.
- 18. Male. ,, 15. Two died of Phthisis on maternal side.
- 19. Female. ,, 28. Phthisis on maternal side. Several cousins suffering from Phthisis at present time.
- 20. Female. ,, 28. Father and mother died of Phthisis.

I am, Gentlemen,

Yours obediently,
ANNIE HAMPTON.

## REPORT OF MEAT INSPECTOR.

Public Health Department,

Parsons Lane, Bury.

To the Chairman and Members of the Health Committee of the County Borough of Bury.

Gentlemen,

I have pleasure in submitting to you my report for the year ending December 31st, 1912, on the inspection of Meat, Dairies, Cowsheds, Bakehouses, &c.

During the past year the various animals, carcases, &c., passing through the Public Abattoirs have been carefully examined, both before and after slaughter, and, generally speaking, the meat retailed in the Borough has been of a high standard, and fully equal to that of the past few years.

During the year it was found necessary to pay special attention to 91 carcases, of which number 69 were affected with Tuberculosis in varying degrees. These consisted of 20 cows, five bulls, seven heifers, seven bullocks, and 30 pigs. The remaining 22 were variously affected.

Of the cattle found to be affected it was not in any case found necessary to condemn and destroy the entire carcase, the disease being in all cases so localised and confined to membranes as rendered it possible to remove the diseased parts only. In several instances portions of carcases and the whole of the internal organs were destroyed, in one instance a fore-quarter, and of the remainder the affected parts and organs were destroyed after careful stripping had been carried out.

Of the pigs found to be affected, eight entire carcases were destroyed (the disease being generalised), in several instances the heads and portions of the forequarters, and in the remainder the heads and such of the internal organs as were diseased.

It was also found necessary to condemn and destroy the entire carcases of 11 sheep (died or slaughtered while in a moribund condition), two pigs (died), one pig (emaciated), and one cow (emergency slaughter), this bringing the number of entire carcases destroyed to 23.

In two instances sides of beef have been found containing abscesses in the lumbar fat; these and the surrounding tissues were carefully removed and destroyed.

The following organs (variously affected) were also destroyed, viz.: 10 beast livers, five sheep livers, the kidneys of two pigs, 14 pig livers, four beast lungs, and three pig lungs.

On seven occasions I have been called upon to inspect carcases slaughtered in emergency upon farms in the Borough. In six of these slaughter had been performed sufficiently early to enable the carcase being passed as fit for food; the remaining carcase was, however, unfit for food, and was destroyed at my request.

During the same period the butchers' shops, fish shops, &c., have been constantly kept under supervision, regular and frequent visits having been paid to the same; the meat, fish, &c., coming under observation having been, with few exceptions, very satisfactory in quality. One waggon of carrots, one box of haddocks, and one box of kippers were received in an unsound condition and destroyed at my request.

On one occasion I was requested to call and inspect a length of pork consigned from a farm outside the Borough, which the butcher considered doubtful. On examining the same I found it to be extensively affected with Tuberculosis. This was seized and subsequently destroyed by Magistrates' Order, but prior to destroying the meat, and after consultation with the Medical Officer of Health and Town Clerk, I interviewed the consignee, who voluntarily surrendered the remaining portion of the pig and undertook to reimburse the people to whom he had sold portions. It was not considered necessary to take any further action.

In every instance where the extent or nature of the disease has rendered the carcase doubtful, it has been reported to the Medical Officer of Health, and his advice sought thereon, this necessitating the attendance of the Medical Officer on several occasions.

## FARMS.

of which there are 63. These have been kept in a fair state of cleanliness, and several have undergone alterations with a view to increasing cubic space, lighting, ventilation, and drainage.

During the year one farmer was warned by the Medical Officer of Health for allowing the liquid manure tank to overflow and thereby causing a nuisance. No other complaints have been recorded.

Only one application has been received during the year for registration under the Dairies, Cowsheds, and Milkshops Orders, 1885-6.

## BAKEHOUSES.

The bakehouses have been kept under observation, and have been carried on in a satisfactory manner.

There are at the present time in the Borough 83 bakehouses on the register, of which the following is an analysis:—

- 1 Factory Bakehouse.
- 2 Wholesale Bakehouses.
- 2 Cellar Bakehouses.
- 41 Special Bakehouses.
- 33 Scullery Bakehouses.
- 5 Kitchen Bakehouses.

## OFFENSIVE TRADES.

158 visits have been paid to the various offensive trade establishments in the Borough. No complaint has to be recorded against any of these premises, which have been carried on in a satisfactory manner.

## ICE CREAM AND MILK SHOPS.

These have been kept under observation, and copies of the new regulations have been left with makers and purveyors of ice cream.

## KNACKER'S YARD.

Regular and frequent visits have been paid to the knacker's Yard, generally three times weekly.

The business has been carried on with as little nuisance as possible, having regard to the nature of the work.

The number of animals received at the yard was 128 cows and 208 horses.

Of the cattle, 77, or 60.16 per cent., were returned as tuber-culous; 45, or 35.16 per cent., as due to some form of inflammation; and 6, or 4.68 per cent., to various causes.

I am, Gentlemen,

Your obedient servant,

W. P. OPENSHAW, Cert. San. Inst.,
Inspector of Meat and other foods.

# REPORT OF INSPECTOR HAWORTH, INSPECTOR OF NUISANCES.

Parsons Lane, Bury.

To the Chairman and Members of the Health Committee.

Gentlemen,

I have pleasure in presenting to you my eleventh annual report, this being a summary of the work done in the Sanitary Department.

## REMOVAL OF NUISANCES.

The most common nuisances we have to deal with are those connected with the privy middens and pail closets, although some progress is being made to clear out these most undesirable systems and to substitute fresh-water closets and ashbins. It will take some considerable time before the town is entirely on the water-carriage system unless the pace is accelerated. assistance given by the Cleansing Committee to the owners of property, viz., providing the fittings (pedestal and cistern) was continued, conditions being made that when an application for assistance was received all the adjoining owners be approached and the offer of fittings be made to them. The result of this policy was that all the available fittings were taken during the first two months of the financial year. This policy can only be commended when the grant allowed is increased to at least four times the amount. Practically in all cases where conversions are made the whole of the yard drains have to be re-laid and separately connected to the main sewer, the same being examined before they are allowed to be covered over. The middens, where structurally good, are filled up to at least nine inches above the adjoining ground, and a door 4-ft. by 2-ft. fixed for easy access for cleansing purposes. Where structural alterations have to be made galvanised iron ashbins are fixed. The average cost to the owner of conversions, exclusive of fittings, is about £5 each. We have still a

difficulty to contend with, as in previous years, i.e., the extra water rate which is charged on each house, the tenant in most cases having to pay this in an increase of rent.

The following table gives the number of conversions which have been made during the past ten years:—

Water closets ... ... 224 218 188 261 137 131 121 209 191 107

Waste-water closets... — — 16 54 70 161 204 199 120

Total ... ... 224 218 188 277 191 201 282 413 390 227

The work of examining and testing drains and sanitary fittings on receipt of complaints or at the occupier's or owner's request, is carried out by applying the smoke and chemical tests. In all cases where defects have been found the drains have been re-laid, strong soil pipes substituted for their cast-iron pipes, and joints made in a satisfactory manner. In certain cases the w.c. has been replaced by a more modern type, and the waste pipes of other sanitary fittings have been so connected as to prevent any syphonage or cause any nuisance by being carried up above the roof, a wire guard being fixed to the terminal.

#### NOTICES.

Housing, Town Planning, &c., Act, 1909.

17 closing orders have been served under Section 17 (3) of the Act.

37 notices were served on occupying tenants on the closing orders having become operative under Section 17 (4).

12 notices determining closing orders were made under Section 17 (6).

Public Health Acts, 1875 to 1907.

13 statutory notices have been served during the year in connection with the following matters:—

#### FACTORIES AND WORKSHOPS.

Eight to abate smoke nuisances.

One to abate nuisance caused by insanitary privy closets.

One to provide a sufficient water closet.

#### DWELLING HOUSES.

One	to abate	nuisance	in	connection	with	privy closet.
One	,,	,,		,,	,,	choked drain.
One	,,	,,		,,	,,	defective drains.

Preliminary notices are served in all cases, and if possible personal interviews are made, before a legal notice is served, this course having the effect of getting the nuisances abated at once without the necessity of having to report them to the Health Committee.

Number of preliminary notices served	59
Number of letters in lieu of preliminary notices	382
Number of verbal notices	172
Number of letters sent other than notices	283
Number of special reports re sanitary fittings and	
drains	IO
Number of notices served on occupiers	70
Number of notices served on occupiers of Factories	
and Workshops	2 I
Number of notices received from H.M. Inspector of	
Factories and Workshops, and copies served on	
occupiers	3

# PROSECUTIONS.

Five prosecutions were taken for non-observance of the smoke nuisance clauses. Fines of 20s. and costs were made in three cases, and fines of 40s. and costs and £5 and costs in the other two cases. Abatement orders were made in each case.

Six occupying tenants were brought before the magistrates for non-observance of closing orders made under the Housing and Town Planning Act, Section 17 (3) and (4). The magistrates granted the necessary orders to quit and allowed in five cases 10s. each and in one case 7s. 6d. as removal expenses.

The following table gives particulars of nuisances occurring in which preliminary notices have been served:—

Number of Notices.	Affect-	NUISANCES.	Houses Affected
		FACTORIES AND WORKSHOPS.	
3	6	Workrooms requiring limewashing	
$\begin{array}{c c} & 0 \\ & 1 \end{array}$	$\begin{bmatrix} 0 \\ 2 \end{bmatrix}$	Pail closets in a defective condition	
1	$\frac{2}{2}$	Closets insufficiently screened	-
$\frac{1}{4}$	$\frac{2}{6}$	Water closet drains choked	_
2	_	Insufficient closet accommodation	
1		Water closet without a sufficient supply	
_		of water	According to the second
6	8	Defective and choked drains	
1		Defective eaves-gutters	
4		Accumulation of refuse	
3 1		Burning offensive refuse	
$\frac{1}{1}$		Insanitary urinal Foul pool of water on land.	-a-airea,
1		1 our poor or water on rand.	
		Dwelling-Houses.	
1	1	Damp houses due to defective or without	
		damp-proof courses	1
1	1	Damp houses due to being without cavity	1
5	5	,, ,, defective house roofs	5
32	32	,, ,, ,, troughing	44
48	40	and spouts	41
48	48	Houses to cleanse Houses to repair	$\begin{array}{c} 55 \\ 67 \end{array}$
11	48 11	Houses overcrowded	11
4	4	Defective chimney stacks	4
5	- I	Animals kept so as to be a nuisance	5
36	36	Accumulation of manure and refuse	55
16	16	Defective yard pavements	32
6	6	Foul yard surfaces	6
5	5	Dangerous places	5
5		Water supplies insufficient	20
4	4	Choked drains in cellars	4
24	36	,, ,, passages	47
66	66	,, ,, yards	117
35 34	67	,, ,, water closets	$\begin{array}{c} 122 \\ 60 \end{array}$
28	$\begin{array}{c c} 36 \\ 31 \end{array}$	,, ,, waste-water closets ,, ,, rain-water spouts	32
20	01	,, ,, rain-water spouts	

Number of Notices.	Affect-	NUISANCES.	Houses Affected.
		Dwelling-Houses	
41	49	Defective drains	86
19	19	Untrapped drains	32
4	4	Insufficient drains	4
$\overline{19}$	19	Defective waste pipes	19
$\overset{-\circ}{2}$	4	Waste pipes connected direct to drains	4
$3\overline{5}$	39	Defective rain-water pipes	47
28	29	Defective eaves-gutters	41
3	3	Premises without eaves-gutters	3
19	32	Insufficient water closets	36
33	63	Closets structurally defective	84
6	16	,, and approaches foul	24
21	30	,, cisterns out of order	59
24	61	,, water pipes burst	$1\overline{20}$
5	13	,, without a proper water supply	14
16	16	,, with defective pedestals	$\overline{23}$
3	3	,, with defective flush pipes	$\frac{-3}{12}$
8	3	,, with defective soil pipes	3
3	3	,, with defective ventilation pipes	3
3	3	,, insufficiently lighted and ven-	
		tilated	3
30	33	Waste-water closets out of order	38
55	C. M. 112 67	Privy closets offensive	135
19	43	Pail closets defective	46
12	19	Ashpits—insufficient	$\frac{10}{22}$
29	29	Ashpits without proper doors	74
50	55	,, ,, fastenings	115
17	17	Miscellaneous nuisances	

Nuisances abated and sanitary improvements effected in connection with dwelling-houses and other premises:-Privy closets converted to fresh-water closets ... ... 164 Pail closets converted to fresh-water closets ... ... 16 Additional fresh-water closets provided ... ... ... 38 Waste-water closets replaced by fresh-water closets ... ... 6 Total number of fresh-water closets fixed in connection with old property ... ... 224 Privy middens altered and converted to dry ashpits ... ... 59 Privy middens pulled down and ashbins substituted ... ... 32 Number of ashbins provided (galvanised iron) ... ... Fixed 26

,,

...Portable

41

Number of dry ashpits provided	60
Number of defective ashbins replaced by new ones	29
Ashbins provided with new doors or repaired	78
Privy middens cemented or concreted or modified	34
Ashpits and privy middens (structure) repaired	45
Pail closets repaired structurally	18
New pails provided to pail closets	23
Fresh-water closets put in order—cisterns 33, pipes 40	73
Waste-water closets put in order	28
Traps of waste-water closets unstopped	379
Traps of fresh-water closets unstopped	102
Water-closet pedestals, soil pipes, and ventilating pipes	
renewed	6
Sanitary fittings (other than water closets) repaired or	
renewed	8
Choked drains unstopped and cleansed—cellars 5, passages	
22, yards 66, rain-water pipes 44, water closets 56,	
waste-water closets 36	229
Defective drains taken out and new drains re-laid (502 yards)	412
Waste pipes trapped and repaired	18
Defective rain-water spouts renewed	40
Defective eaves-gutters renewed	32
Rain-water pipes and drains—intercepting traps fixed	16
Defective yard pavements (repaired 13, cleansed 7)	20
Houses in which repairs to plaster, roof, and woodwork have	
been carried out	42
Houses cleansed and limewashed	43
Defective roofs repaired and walls pointed	IO
Cases of overcrowding dealt with	10
Defective fireplaces and chimney flues repaired	5
Animals and fowls removed	3
Foul accumulations removed	35
Nuisances of a miscellaneous character dealt with	28
Buildings taken down	5

#### SMOKE OBSERVATIONS.

104 smoke observations of the mill chimneys have been taken, each being of 60 minutes' duration. The aggregate amount of black smoke evolved was 367 minutes, which is equal to an average of 3.4 minutes for each observation. The time limit (five minutes in sixty) permitted by your Council has been exceeded 17 times by ten firms, this being equal to 16.34 per cent. of the total observations taken, the aggregate amount of black smoke emitted by these firms being 229.75 minutes, which is equal to an average of 13.5 minutes for each observation.

As early as convenient after each observation a copy of the result is forwarded to the firm in question. This courtesy is much appreciated by the management, as it enables them to at once ascertain the cause of any abnormal emission of black smoke.

When the time limit has been exceeded a visit is paid to the works, soon after the observation has been taken, in order to ascertain if there are any defects in the boilers, &c., which may have caused the nuisance.

The following table gives the result of the seventeen observations exceeding the limit:—

			Ŧ	Black	smoke.	Mo	derate	•	No	ne.
Foli	io No.	Initials of Firms.		mins.	secs.	mins.	secs.	n	nins.	secs.
†	3.—B.	C. S. & M. Co. Ltd.		7	15	. 49	15		3	30
†	16.—P.	M. Sp. Co		9	30	. 20	30			O
	35.—P.	M. Sp. Co		14	30	. 38	30		7	O
*	40.—M.	B. & H		16	Ο	. 15			28	30
*	41.—W.	. & J. H		8	30	. 13	О		38	30
*	45.—A.	W. & Sons Ltd		9	15	. 40	30		IO	15
1	50.—P.	M. Sp. Co		8	30	. 29	30		22	0
*	57.—C.	W. S		6	30	. 52	О		I	30
* (	64.—S.	S. & Son		22	30	. 23	30		14	0
* (	65.—O.	B. Ltd		20	ο	. 31	30		8	30
<i>*</i>	72.—A.	W. & Sons Ltd		6	15	. 27	45		26	0
	76.—A.	W. & Sons Ltd		25	15	. 15	30		19	15
* *	78.—B.	C. M. Co		IO	30	. 49	30			
Ť.	88.—S.	S. & Sons		15	30	. 16			_	0
†	89.—O.	B. Ltd		24	Ο	. 32				0
* (	92.—H.	& C		ΙO		. 27				15
† 10	00.—A.	W. & Sons		15		. 33				0
		1 notices were served			Santin		o f	+120	D.,	1.11.

<sup>\*</sup>Legal notices were served under Section 94 of the Public Health Act, 1875.

<sup>†</sup>Prosecuted for non-observance of notice.

Five prosecutions were taken for non-abatement of the nuisance, the result being that magistrates' orders for abatement were made in each case, three firms being fined 20s. and costs each, one firm 40s. and costs, and the other firm £5 and costs.

# INFECTIOUS DISEASES.

257 visits have been made to houses in which cases of infectious diseases have occurred, and notified to the Medical Officer of Health, the number of notifications received being:—

Scarlet Fever	 139
Diphtheria	 13
Enteric Fever	 6
Erysipelas	 41

The procedure which has been carried out during past years has still been continued, viz., of visiting the home as early as possible after receipt of the notification, and arranging for the patient to be isolated at the Hospital, or at the home in cases where a separate room could be used, providing the house was not used for business purposes. If the patient is kept at home, the person in charge is advised as to the best methods to adopt to prevent the spread of the infection and as to disinfection, the house being re-visited during the period of convalescence. When the patient is removed the walls of the room are sprayed with a solution of formalin and afterwards fumigated with the fumes of formal-dehyde. The sanitary condition of the house is noted, and a report on each case is submitted to the Medical Officer of Health.

### COMMON LODGING-HOUSES.

223 visits have been paid to the 24 lodging-houses within the borough, which were found to be kept in a fairly clean condition, the limewashing being done in accordance with the Public Health Acts on the first week in April and October. The following nuisances and breaches of bye-laws were noted and dealt with

during the year, letters and preliminary notices having the desired effect of getting the abatement of the same:—

3 in connection with rooms not cleansed.

2			defective	floors.
det	• • •	11	0.010001.0	

- I ,, defective ceiling.
- 2 ,, defective roofs.
- defective window frames (sash cord).
- defective condition of wall.
- defective eaves-gutters and spouts.
- ı ,, insufficient ashbins.
- ı ,, defective ashpit.
- 3 ,, ,, choked w.c. drains.
- 2 ,, choked yard drains.

The houses are kept under observation by the plain-clothed police who have been appointed as additional Inspectors by the Health Committee, which gives them the right of entry to the houses at any time.

## HOUSES LET IN LODGINGS.

The number of houses now on the register is 44, being two in excess of the number last year. These houses contain 274 rooms, of which 197 are let off as furnished apartments, giving accommodation for 481 adults and 83 children.

144 visits have been made in addition to those made by the police officers, and the rooms have been kept fairly clean. The following breaches of the Bye-laws and nuisances were dealt with:—

5 notices re limewashing not finished.

- 4 ,, ,, rooms overcrowded.
- 2 ,, ,, passages and staircases to cleanse.
- 1 ,, ,, back premises to cleanse.
- 1 ,, ,, unregistered room being occupied.
- ,, ,, defective floor boards.
- 3 ,, ,, accumulation of refuse.
- 2 ,, ,, insufficient closet accommodation.
- 3 ,, ,, w.c.'s being out of order.

10 notices re choked drains—w.c.'s 2, w.w.c.'s 3, yards 3, r.w.p.'s 2.

- 3 ,, ,, eaves-gutters to cleanse and repair.
- 2 ,, ,, defective waste pipes.
- 1 ,, ,, defective yard pavement.

With one exception, a case of overcrowding, it was unnecessary to report to the Health Committee any of the above nuisances, the preliminary notices served having the desired effect.

### EXPLOSIVES ACTS.

Forty persons were registered for the sale of explosives during the year as required by these Acts, 39 being for the sale of fireworks as mixed explosives and one for the sale of gunpowder, &c. The sale of fireworks only lasts for about two or three weeks, i.e., the last week in October and the first and second weeks in November. During this period the shops were visited, and the fireworks were found to be stored in accordance with the regulations made, dummy fireworks being exposed in the windows. Gunpowder is sold by the ironmongers and locksmiths, and is kept in safes in small quantities.

#### PETROLEUM ACTS.

Under these Acts two licences have been granted for the storage of petroleum, eight for petrol and four for calcium carbide. In every case the petrol is kept in two-gallon metal vessels in properly constructed stores, the calcium carbide being kept in metal vessels with airtight lids in dry places, generally in the shops and warehouses.

#### SUMMARY OF VISITS.

Infectious and contagious diseases	257
Common lodging-houses	223
Houses let in lodgings	144
Factories	36
Workshops	63
Canal boats (wharf)	3

Re	Housing and Town Planning Act	173
, ,	Premises to cleanse and repair	223
,,	Houses overcrowded	30
,,	Flooded cellars	ΙI
,,	Houses damp	14
,,	Defective rain-water spouts and eaves-gutters	126
,,	Drains choked, dilapidated, and untrapped	746
,,	Testing drains and fittings	31
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In conclusion I have to express my sincere thanks to Inspector Kay for the most able services which he has rendered in the carrying out of the work embodied in this report. I also wish to express my thanks to you for your kind consideration.

I am, Gentlemen,

Your obedient servant,

JOHN HAWORTH, M.S.I.A.,

Certified Inspector of Nuisances, Inspector of Meat and other Foods, and Sanitary Engineer.

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